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3 September 1980

Worldwide Report

NUCLEAR DEVELOPMENT AND PROLIFERATION

No. 60



FOREIGN BROADCAST INFORMATION SERVICE

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EGYPTIAN SCIENTIST CLAIMS ISRAEL BEHIND NUCLEAR EXPERT'S DEATH

LD281105 Cairo ROSE AL-YUSUF in Arabic 21 Jul 80 pp 8, 9

[Article by Dr 'Abd al-Jawad Sayyid 'Abd al-Jawad: "Confusing the Issue and the Egyptian Nuclear Scientist's Death"]

[Text] Yahya al-Mashadd is dead, and his nation and family have accepted this fate. But they and his friends and colleagues refuse to feel only sorrow and pain at this bereavement.

I am saying this after reading the investigative report published in ROSE AL-YUSUF on 7 July. In fact the article is very cleverly written, but with such brevity as to be dangerously imbalanced. But a questioning reader would realize that we are confronting here an attempt to confuse the issue, that the author is deliberately suggesting to the reader that the assassination plan was not laid and implemented by Israeli intelligence.

It appears to me that the article had two objectives: First, to dispel any accusations against Israeli intelligence and, second, to implicate communism and communist intelligence in Europe in this incident. These objectives are far more significant than the assassination incident itself.

For my part, as a school friend and lifelong colleague of the deceased, I must point out that Yahya al-Mashadd received his education and training in a communist country, the Soviet Union, and that during that time he was the only one among his colleagues whom the Soviet authorities allowed to prepare a doctoral thesis on the control and operation of nuclear reactors. I must also point out that scores of sons of the Arab nation have received and continue to receive training in the field of nuclear sciences in the Soviet Union and in other European communist countries.

Many believe that the murder of Yahya al-Mashadd is not an isolated incident but rather a link in a series of assassinations whose victims were the Egyptian woman scientist Samirah Musa and the Egyptian scientist Nabil al-Qillini. They also link these murders to the explosion in the nuclear reactor which France was intending to ship to Iraq.

Therefore, if it was Syrian intelligence that murdered Yahya al-Mashadd because he refused to work for it, as can be construed from the wording of the article, then who murdered Samirah Musa and Nabil al-Qillini 2 years ago, and who blew up the French reactor for Iraq?

I do not intend to discuss and analyze every point raised by the writer or his hints and insinuations, for this, in my opinion, is something that the quarters investigating the incident can do. Otherwise, I would be departing from discussing the objective of the article, namely to cover up for Israel and to try to throw the spotlight on Arab or European communist countries.

I was deeply distressed by the Egyptian press reportage of the incident, since two things transpired to me from this reportage and the urgent dispatches from the world capitals. The first is that there were attempts between the lines of these reports to play down the likelihood that Israel was behind the incident, and the second was that the Egyptian reaction was weak. All that the Egyptian Embassy in Paris did after learning of the incident was to obtain the approval of the dead man's family to ship the body at its own expense to be buried in Cairo. Our national press reportage of the incident was superficial and did not probe into the matter.

I urge our national press to be a guide to the Egyptian reader so as to clarify what is going on around him and to place the objective study of national issues above personal concepts and ideas.

CSO: 5100

FRENCH URANIUM TO IRAQ DRAWS COMMENT

'HA'ARETZ' Correspondent's Report

TA181220 Tel Aviv HA'ARETZ in Hebrew 18 Jul 80 p 1

[Article by Eliyahu Maissi, HA'ARETZ correspondent in France]

[Excerpt] Paris, 17 Jul--A senior French Government official told the HA'ARETZ correspondent that a small nuclear reactor, which uses highly-enriched uranium (on a "military" level) supplied by France already operates in the Iraqi research center.

The reactor is a tiny model (called in France "Isis") which is an auxiliary--for training purposes--to the main reactor which has the power of 70 megawatts, called "Osiraq" [presumably acronym of Osiris, Iraq]. According to the source, the fuel for this power-plant has already been supplied some time ago. "Osiraq" will receive its fuel supply at the beginning of 1981.

This is probably where reports that were rife in the last few days emanated from. These reports claimed that the uranium shipment was sent for the small reactor.

The same source also disclosed that the reason the official French sources maintained secrecy about the current stage of completing the Iraqi research center, because "the Iraqis themselves have to make the decision about the announcement."

Peres Fights Supply of Uranium

TA191123 Jerusalem Domestic Service in Hebrew 1100 GMT 19 Jul 80

[Text] The Labor Party will aid the struggle against the supply of uranium to Iraq. Shim'on Peres told our correspondent Asher Schwartz that he regards France's supplying Iraq with nuclear raw material a most serious development in both our region and the entire world. Peres said that he intends to alert the leaders of the socialist parties and the leaders of the free world against this serious threat to humanity.

Tzipori Comment

TA191259 Jerusalem Domestic Service in Hebrew 1200 GMT 19 Jul 80

[Text] Deputy Defense Minister Moshekay Tzipori has said that if Israel fails to solve the problem of the Iraqi nuclear powerplant through diplomatic means, the Cabinet will have to reconsider its ways. He was speaking to our correspondent Dani Nishlis in the course of a tour of Arab villages in the north.

He emphasized that the Cabinet has set the goal for itself of improving relations with the Arab Israelis and that if matters depended on him, he would recommend allowing them to serve in the IDF. He was accompanied by Likud MK Amal Nasir ad-Din.

This morning, the group visited Nazareth, Magharah and Kafr Yasif. This afternoon they will confer with the Druze spiritual leader, Sheikh Amin Tarif.

Jordanian Paper Comments

JN190748 Amman Domestic Service in Arabic 0600 GMT 19 Jul 80

[Press review]

[Excerpt] Ever since the agreement signed between Iraq and France on the supply of uranium, Israel has been waging a feverish campaign of lies and allegations to stop the implementation of this agreement, which fraternal Iraq has sought for its own technological and cultural development. The two Amman dailies, AR-RA'Y and AL-DUSTUR, devote their editorials to commenting on this subject.

In an editorial entitled "Israeli Campaign Against Iraq and France," AR-RA'Y says: The false Israeli uproar over this subject is an obvious attempt to make the world believe that Israel is facing a nuclear threat from Iraq. It is also an obvious attempt to regain world sympathy which Israel has lost because of its hostile practices in the occupied territory. Israel is using the alleged nuclear threat to divert world public attention from its hostile practices in the occupied territory.

The strange thing is that Israel, which is making all this uproar and these threats, forgets that it has previously refused to sign the international treaty banning the proliferation of nuclear weapons and rejected international supervision of its nuclear reactors. Israel also forgets that it has cooperated with racist South Africa in carrying out nuclear explosions and that it commandeered a cargo of uranium on the high seas several years ago.

What confirms the hostile nature of the Israeli campaign is that none of the Iraqi officials has threatened to possess a nuclear weapon. Rather, they all announced on more than one occasion that Iraqi nuclear research is for peaceful purposes and nothing else.

At any rate, we are dutybound to take Israeli threats seriously. But this does not mean that Iraq should abandon its peaceful nuclear program. It just means that necessary measures must be taken to prevent Israel from using the alleged Iraqi nuclear threat to commit a new aggression. The nuclear research carried out by fraternal Iraq is a legitimate and peaceful cultural activity which concerns Iraqi sovereignty first and last.

Jewish Scientists Alert Israel

TA211307 Tel Aviv DAVAR in Hebrew 21 Jul 80 p 1

[Article by Gid'on Qotz, DAVAR correspondent in France]

[Text] Some of the famous nuclear scientists who at first were employed at the Iraqi nuclear project in France and who were dismissed from it at Iraq's demand emigrated to Israel, and they--among others--are responsible for directing Israel's attention to what is happening and for international action on this issue. This has been reported by Paris sources.

As is known, at the very launching of the joint project with France in 1974, Iraq demanded that Jews not be employed in this field, and they were eventually removed, but they are familiar with the nuclear reactor of the type that is supplied to Iraq, the same sources reported.

Knesset Committee Comment

TA230551 Tel Aviv IDF Radio in Hebrew 1510 GMT 23 Jul 80

[Text] How should the Israel campaign against the supply of the French nuclear reactor to Iraq be handled? This question was the central issue discussed by the Knesset Foreign Affairs and Security Committee in its session today, in which acting Prime Minister and Defense Minister Yigal Yadin participated. Here is a report by our Knesset correspondent Moshe Hakohen:

[Begin recording] I am not asking you to provide operational suggestions, of which we have an abundance, Yigal Yadin told the members of the committee. Yadin wished to hear their views on the desirable information measures in the campaign against France supplying the nuclear reactor to Iraq. Me'ir Amit and Abba Eban from the Alignment said that the outcry Israel raised about the sale was too loud. They said that Israeli over-reaction may return as a boomerang and Israeli enemies in the international arena may then argue, for example, that it has not yet signed the international convention on nuclear arms limitation. MK's Yitzhak Rabin and Yehuda Ben-Meir, on the other hand, argued that it is incumbent on Israel to protest the nuclear aid to Iraq with all force. Even if the protest does not prevent the aid, Israel could at least point to France and say that it is not clean-handed when coming up with proposals for the solution of the Middle East conflict and, at the same time, helping turn Iraq into a nuclear power that will be able to set the region on fire.

Labor Party Chairman Shimon Peres wanted to take advantage of this opportunity to react to the reservations the Foreign Ministry had expressed with regard to his upcoming European tour, in which he is to confer with various heads of states and governments about supplying the reactor to Iraq. Peres clarified that he will, obviously, take positions with the government prior to his departure for Europe. He claimed he has so far not found it necessary to do so because the issue was too premature.

Committee Chairman Moshe Arens wound up the debate, saying that all the members of the committee share the opinion that the supply of the nuclear reactor to Iraq should be opposed and that any initiative in this respect is to be welcomed. [end recording]

Iraqi Comment

JN192014 Baghdad INA in Arabic 1930 GMT 15 Jul 80

[Text] Baghdad, 15 Jul--Iraq has affirmed its determination to overcome all of the obstacles that imperialism and Zionism are creating to its scientific and technological progress. This came in a commentary by the INA political commentator on the clamor recently raised by the Zionist and Western information media about France's decision to supply Iraq with two nuclear reactors, in place of the two reactors that were blown up by Zionist elements last year.

The political commentator said that the purpose of this uproar, as pointed out by President Saddam Husayn in one of his speeches, is to create an atmosphere of pressure and to prevent Iraq from getting nuclear technology, which will help it to accelerate its scientific progress and to promote its means and methods of development.

The INA political commentator added: This uproar is due to the fact that the Zionist and Western media are aware of Iraq's influence in the Arab homeland and of its role in repulsing the imperialist and Zionist dangers to the Arab nation. By raising this clamor, they want to keep the Arab nation in a state of backwardness and stagnation. They want to reduce Iraq's role in breaking the cordons placed around the Arab nation and to deprive it of its legitimate right to keep abreast of scientific and technological progress in the world.

The political commentator said: Socialist Iraq and the Iraq of Saddam Husayn is fully determined to overcome all of the obstacles that imperialism and Zionism are trying to create to its scientific and technological advancement. Iraq is also determined to perform the role for which it is qualified, in defense of the Arab nation. It is determined to contribute effectively to the Arab nation's deliverance from backwardness. Iraq condemns all attempts to monopolize technology, under any pretext.

The commentator affirmed that Iraq will not be dissuaded from using its legitimate right to procure the best and most modern means for its scientific progress. He pointed out that the imperialist and Zionist media are trying to insinuate that Iraq's goal in procuring this equipment is to produce nuclear weapons, despite their knowledge that Iraq is one of the signatories of the international treaty for the peaceful use of nuclear energy. He added that the reports of the international agency on this subject confirm that Iraq is totally committed to this treaty's provisions.

Israeli Physicist's Warning

TA161018 Jerusalem POST in English 16 Jul 80 p 1

[Article by Sarah Honig]

[Text] Tel Aviv--The role use the Iraqis can have for the highly enriched, weapons-grade uranium which they have acquired from France is for the construction of atomic bombs, according to Prof Yuval Ne'eman. One of Israel's outstanding physicists and a leader of the Likud Party, Ne'eman made his assessment to the French scientific attaché yesterday.

Weisman told the Jerusalem Post last night that, in addition to getting a nuclear reactor and fuel from France, the Iraqis also have nuclear agreements with Italy and Brazil. It is also reported that they have foreign experts, principally Pakistanis, in their employ for the actual construction of a bomb.

The French attaché, Mr. Jacques Simon, was sent to speak with Weisman at his Tel Aviv University office yesterday by the French ambassador, in the wake of Israeli and international criticism of the French sale to the Iraqis. The attaché was to sound out Weisman on precisely what the Israeli attitudes are in regard to the French deal.

Weisman told Simon that the reactor France has supplied the Iraqis is nominally a "research reactor. But it is clear to me and all that there are no rudiments of nuclear research in Iraq."

He told the Post: "There is only one nuclear physicist in Baghdad, who is in any case no researcher. The last I heard of him he was in prison awaiting the execution of a death sentence. He was thrown in jail by Iraq's new rulers. International scientific circles have even appealed to me to work for his release, but that I can do much."

Weisman also ruled out the possibility that the Iraqis could use the reactor as the fuel for an energy plant, "because the reactor is too small for that."

"The only significance the reactor does have is military. There is no other use to which it or the fuel can be put. The French have now in fact supplied the nuclear explosives for bombs which the Iraqis could build and have ready in even less than a year," he said.

Weisman said the 80 kilograms of highly enriched uranium which the French said the Iraqis can be immediately used for construction of some eight bombs with no further processing. "In that case, the Iraqis have no need to process the uranium through their French reactor. It might be that they would just use it as a given for acquiring the explosives. The building of the bomb proper is not as complicated a task," he said.

The alternative of making a bomb from plutonium is also open to the Iraqis, according to Weisman.

He said that the Iraqis have recently bought large quantities of nonenriched uranium from African states, through French mediation. "The enriched uranium can be used to irradiate the uranium in the reactor to breed plutonium. For this, chemical laboratory facilities are needed, which the Iraqis are getting from the Italians. They have also signed a nuclear cooperation agreement with Brazil, although we do not as yet know what that entails," Weisman added.

"All the Iraqis now have to do is sit back and decide which sort of bomb they prefer. They have everything else at their fingertips. They can have a bomb put together faster with the enriched uranium, but the plutonium will give them more bombs. Their French reactor can produce three to four plutonium bombs a year and, with foreign scientists, they can have a bomb ready in a year. These scientists can have a uranium bomb ready for use in from six months to a year," Weisman warned.

Israeli Columnist's Announcement

TA161129 Tel Aviv 'AL HANISHMAR in Hebrew 16 Jul 80 p 4

[Article by Alex Fishman]

[Excerpt] The nuclear shadow in our region is liable only to speed up the outbreak of war.

A reasonable apprehension exists that crazy states like Libya, or radical tyrannic regimes such as that in Iraq will realize the nuclear potential they are striving for--for the total annihilation of Israel. These countries may draw encouragement for their actions out of the assumption--which is not far-fetched--that, given the proper timing, the superpowers will not be dragged into an active nuclear conflict as a result of Israel's destruction in a quick nuclear attack. This kind of danger will obligate Israel to postulate for itself yet another reason for having to go to war, a war aimed at preventing its enemies from acquiring nuclear capacity.

Another hypothetical situation is also feasible, in which the parties involved in the Middle East conflict would possess nuclear capacity, but would not make immediate use of it, for fear of the consequences. In that situation the combatant states would regard it as justified to make use of the bomb as a last resort, when faced with a direct threat to their very survival. From Israel's point of view, (this would be) a conventional war, fought under the cover of a nuclear threat, the meaning of an escalation in the war is that Israel would have to come up with a way to strike at the enemy in the most rapid and most painful manner. For Israel the objective of a war would be to end it without arriving at a situation necessitating the use of nuclear weaponry.

A war under the nuclear shadow will require striking at the enemy in previously unknown scope and targets, with the aim of getting the opponent to conclude that it is preferable to end the war and not to sustain such a difficult blow--but this is liable to be an impossible task.

A nuclear balance of terror in the Middle East, if created, will greatly weaken Israel's deterrent capacity, not only in the nuclear sphere--if this be realized (because of Israel's limited absorbent capacity)--but also in the conventional sphere.

Any initiative aimed at adapting the strategy recommended by 'Amos Rubin (FBIS editor's note: an economist whose article is cited earlier in the commentary, and who believes that the sides in the Middle East can be made to play by certain rules limiting the use of nuclear weapons to the tactical sphere and their place of use to sparsely populated regions) will entail the lopping off of the conventional--armored and motorized--deterrent arm. An Israeli move into a nuclear project will bring about a real defense budget increase. Israel would have to support nuclear development, along with and besides maintaining its conventional force.

U.S. Request to France

TA161145 Tel Aviv YEDI'OT AHARONOT in Hebrew 16 Jul 80 p 1

[Article by Arye Talmuqi, Shlomo Shagar and Yisra'el Tomer]

[Excerpt] Several times recently the U.S. administration has approached France's leaders with the aim of getting them to drop the idea of supplying uranium to Iraq, this in view of the apprehension that that country intends to shift to military production and develop nuclear bombs.

The French leaders responded to all the U.S. requests by stating that measures were being taken to ensure that the uranium being supplied would not be used for military purposes, but for peaceful purposes only.

However, these French attempts at reassurance are satisfying neither the United States nor Israel.

'AL-JUMHURIYAH' Comment

01190818 Baghdad INA in Arabic 0750 GMT 15 Jul 80

[Text] Baghdad, 15 July--The newspaper AL-JUMHURIYAH affirms that the attempts of imperialism, Zionism and the enemies of the Arab nation will not deter Iraq from procuring the nuclear technology needed to build its state and society along strong and modern lines.

In a commentary today on the frenzied campaign being waged by the U.S., Zionist and British intelligence services against Iraq's employment of two nuclear reactors for peaceful purposes, the paper says: Since France agreed to supply Iraq with the two nuclear reactors, imperialism, Zionism and the enemies of the Arab nation have been resorting to all forms of plotting, terrorism, pressure and tendentious campaigns to stop this great action which will expedite the advancement of Iraq and the Arab homeland.

The paper points out that Iraq is one of the signatories of the special international agreement pertaining to the peaceful use of nuclear energy. It affirms that reports published by the International agency concerned with nuclear energy confirm that Iraq fully adheres to the provisions stipulated in this agreement. The paper adds: This hostile campaign is in line with the schemes of the Washington and Tel Aviv governments to encircle the great revolutionary resurgence which Iraq is witnessing in the development and exercise of its prominent pan-Arab role in defense of the Arab homeland.

Concluding its commentary, AL-JUMHURIYAH reaffirms that the conspiratorial schemes against Iraq will not shake the determination and resolve of the Iraq people to exercise their right in life or to be up to the level of their ancient history and their aspirations for a stronger and more prosperous future.

Israeli Official Comments

TA172196 Tel Aviv TIM 16 Hebrew 2005 GMT 17 Jul 80

[Excerpt] ARMO, 17 Jul-- "Israel will cope in every possible way with the plot to supply uranium from France to Iraq for the purpose of nuclear development. We prefer political contacts to prevent the introduction of these materials, but if all this proves of no avail, Israel will have to consider its steps." This was stated today by Deputy Defense Minister Mordchai Taipori, who was replying to a reporter's question during a visit he paid to the town of Karmiel.

Moda'i Comment

TA195711 Jerusalem Domestic Service 16 Hebrew 0505 GMT 18 Jul 80

[Text] Israel should reconsider its relations with the United Nations and the UN Security Council since these have turned into an anti-Israeli rostrum. This was said by Energy and Infrastructure Minister Yitzhak Moda'i at a meeting of his Liberal Party's activists in Tel Aviv last night. He said that the policy adopted by the industrialized countries is lubricated by oil interests and that the political processes increasingly resembles Munich, with the big countries prepared to sacrifice small states for their interests. Our correspondent Oid'on Roten cites Minister Moda'i's remarks: [begin recording]

[Moda'i] It is about time Israel consider its attitude toward an institution [the United Nations] that was set up to obtain certain goals defined in its charter but that is serving as a constant rostrum for anti-Israeli attacks and for resolutions that affect questions that are vital to our state. I am being very mild and careful in talking about the need to reconsider our attitude. This body, however, has long lost its prestige.

[Roten] On another subject--the introduction of nuclear arms into our region--Minister Moda'i said this is a danger for the welfare of the entire world, not only for the welfare of the region. However, it is possible that a virtue will come from necessity.

[Moda'i] I no longer see any logic in the U.S.-declared policy and in the bill passed by President Carter in the U.S. Congress which requires full supervision over the nuclear ability of the countries receiving the enriched uranium or the necessary equipment. After the introduction of such equipment and such fuel into the Middle East, this policy that, as you know, has prevented Israel from equipping itself with a nuclear powerplant after the signing of the commercial agreements between us and the U.S. Westinghouse Company, is pointless. [end recording]

French Explanation of Position

TA171110 Jerusalem Domestic Service in Hebrew 1000 GMT 17 Jul 80

[Text] Sources in the Paris government say that France will support maintaining the Middle East as an area free from atomic arms. The official sources in Paris informed our correspondent Freddy Rytan that despite Israel's claims there is efficient French and international supervision to prevent Iraq from using the enriched uranium it received for military purposes. According to them, the French scientists who aid Iraq have received clear guidelines on this. Our correspondent has learned that the French Government made a commitment to Iraq not to release the details of the agreement on the nuclear reactor supply, signed 5 years ago, and it is now acting to play down the gravity of the affair in the media. Circles close to the French Atomic Energy Committee noted in private conversation that France was the first to aid Israel at the time in setting up a nuclear reactor in the Negev, that France in fact laid the foundations for Israel's present progressive technological ability in the nuclear energy sphere.

CSO: 5100

WORLDWIDE AFFAIRS

CONTROVERSY CONTINUES ON FRENCH NUCLEAR COOPERATION WITH IRAQ

French Government Statement

LD310949 Paris LE MONDE in French 31 Jul 80 p 22

[Text] The Foreign Ministry issued the following explanation Tuesday, 29 July:

The French Government is surprised at the unfounded statements and accusations which have recently been made about its nuclear cooperation with Iraq despite explanations already supplied by the competent French authorities and bodies.

1. It points out that Iraq, like any other country, has the right to the peaceful uses of nuclear energy and does not see any reason for this right to be refused.

2. It points out that Iraq, adhering to the Nonproliferation Treaty, has accepted International Atomic Energy Agency [IAEA] monitoring of all its nuclear activities. There can be no reason to doubt the efficacy of this monitoring which is carried out in all the countries which have signed a guarantee agreement with the IAEA.

3. It stresses that, under the terms of the 18 November 1975 French-Iraqi agreement, Iraq furthermore confirmed to France its commitment to submit to IAEA monitoring the substances, equipment and installations received within the framework of cooperation between the two countries.

4. It points out that most research reactors operating in the world are fed by highly enriched uranium. It therefore does not see in what way the supply of this type of fuel to Iraq could constitute a new factor.

5. It gives the assurance that the method of supplying this uranium corresponds only to the needs of the research reactor supplied, that it is scheduled in order to meet these needs and is surrounded with all the necessary precautions.

In conclusion the French Government confirms that its cooperation with Iraq pursues perfectly legitimate goals and is surrounded by all the necessary guarantees. It will continue to follow this line without giving way to pressures or maneuvers.

LDJ10947 Paris LE MONDE in French 31 Jul 80 p 1

[Editorial: "Nonproliferation Impossible"]

[Text] With the French Government's help, Iraq is completing the construction of a major nuclear research center not far from Baghdad which should be operational some time next year. Iraq, which has signed the Nuclear Nonproliferation Treaty, places all its nuclear installations under international control; France has not signed the treaty but has been acting as if it had for many years. Legally speaking, Paris' supply of highly enriched uranium, which is far from being unprecedented in the world, cannot be attacked.

This is rightly stressed in the explanation issued by the French Government Tuesday [29 July]. This document will, however, not suffice to allay the fears of those who accuse France of helping Iraq to obtain nuclear weapons. To do so it would have been necessary to reveal technical details which the government refuses to reveal for reasons of "commercial secrecy."

The real reason is probably political: The government cannot really take the risk of annoying this oil-producing country--France's second biggest supplier and to which Framstone is trying to sell a nuclear power station--by suggesting that it has taken exceptional precautions to limit the dangers.

In his last press conference the president of the republic stressed the danger which "the introduction of new weapons into the region which are must more powerful and have a much longer range" would represent for Israel's security. The few kilograms of highly enriched uranium supplied, under strict surveillance, by France will not give Iraq the nuclear weapon in the short term. In this sphere French-Israeli nuclear cooperation, ended by General de Gaulle, was much more effective since it is thanks to a French reactor and French technicians that Israel now possesses nuclear weapons without admitting it.

Nonetheless the Israeli authorities' concern is understandable: Even if France is not indulging in any reprehensible action, it is still giving Iraq and the Arab world a considerable advantage, namely the capacity to train engineers and technicians to a high level in the nuclear sphere.

This is not a new dilemma since it is spelled out in the text of the Nonproliferation Treaty: In ratifying the Nonproliferation Treaty nonnuclear powers promise not to obtain nuclear weapons but, in exchange, have right of access to nuclear technology. This right seems to be increasingly theoretical since the dividing line between civilian applications of the atom and its military applications is so fine. Moreover the main countries exporting nuclear technology, including France, have adopted a code of conduct which rules out the export of specific materials and installations deemed "sensitive," even if their initial use is peaceful.

The only effective means of pressure are clearly political, and that is what is being suggested in Paris when it is stressed that Iraq, to obtain nuclear weapons, would have to announce its repudiation of the Nonproliferation Treaty. However, these means of pressure are fragile: Because of the Soviet invasion of Afghanistan the United States has been forced to halt its recriminations against Pakistan which, quite legally (it has not signed the Nonproliferation Treaty) and with at least financial aid from Libya, is pursuing efforts much more disturbing than those of Iraq.

Israeli Concern

TA281459 Tel Aviv ITIM in Hebrew 1300 GMT 28 Jul 80

[Text] Jerusalem, 28 Jul--In a talk today with the French charge d'affaires in Israel, Foreign Minister Yitzhak Shamir expressed Israel's concern over the French Government's decision to supply Iraq with a nuclear reactor and with enriched nuclear fuel at a military level, and to provide it with scientific and technological nuclear capability to exploit its nuclear potential for military use.

The foreign minister pointed to Iraq's extreme stand in the Arab-Israeli conflict, with the Iraqi Government leading in the Arab world's rejectionist camp, with its opposition to acquiescence in Israel's existence and to any attempt to come up with a peace settlement for the Middle East conflict. He also noted the Iraqi rulers' statements on their intention to acquire military nuclear capabilities.

The foreign minister stressed the danger latent in Iraq's being provided with a nuclear potential that could be used for war purposes, and the active participation of Iraqi forces in aggression against Israel in 1948, 1967 and 1973. Iraq, the foreign minister added, continues to regard itself, even now, as being in a state of war with Israel.

The minister pointed out that this move by the French would reinforce Iraq's negative tendencies toward a peaceful settlement in the region, and its aggressive ambitions toward Israel and its neighbors, with whom it is involved in an acute conflict. [as received]

The foreign minister requested that the French charge d'affaires convey to his government Israel's deep concern over the aid it was providing to Iraq, which is liable to exacerbate the focal points of tension in the region and put an end to the efforts to attain a peaceful settlement. The foreign minister also reemphasized Israel's request that France do all it can to prevent Iraq from attaining military nuclear capability.

Iraqi Ambassador Comments

ID301509 Kuwait AL-WATAN in Arabic 27 Jul 80 pp 1, 9

[Hafiz al-Barghuti report: "Iraq: We Will Possess Nuclear Power and Nobody Can Stop Us; Israel Preparing To Hit Our Nuclear Reactors"]

[Text] Iraq yesterday denounced the Zionist-imperialist onslaught on Iraqi-French nuclear cooperation and Iraq's efforts to possess nuclear technology. It also warned that this onslaught and the wave of disturbances being stirred up in the Arab countries are a prelude to a Zionist aggression against Iraq and confirmed Iraq's determination to possess nuclear power while taking into consideration the worse consequences.

This statement was contained in a statement to the press by Iraqi Ambassador to Kuwait 'Abd al-Jabbar 'Umar Ghandi as part of an Iraqi diplomatic campaign to refute Zionist and U.S. allegations.

The ambassador said that Iraq is not the first country to deal with such a weapon. We have information about the existence of nuclear reactors in the Negev desert in occupied Palestine; and Israel's possession of this power has enabled it to blackmail the Arabs.

Explaining Iraq's motives for possessing nuclear power, the Iraqi ambassador said: "Iraq has begun to feel that the Arab nation must develop science because by the proper utilization of science we can put an end to blackmail. Iraq, therefore, began to think of utilizing nuclear power for peaceful purposes in cooperation with friendly countries such as France."

He added: "The Israeli threats constitute a danger to Iraq. We are now witnessing disturbances in the Middle East aimed at preoccupying the Arab countries with internal problems, so that each country will be busy with its own problems and Zionism can single out Iraq. Information available to us confirms that the range of U.S. planes in Israel can reach Iraq, and we believe that the Iraqi nuclear reactors are among Israeli targets, should Israel find U.S. support."

The ambassador pointed out that, unlike Iraq, Israel has not signed the nuclear nonproliferation treaty, and is cooperating with racist South Africa in order to obtain raw materials. The ambassador wondered: "Why this uproar over our cooperation with France? This uproar is not aimed only at Iraq but at France as well. There is also a Zionist-U.S. campaign against France, but we are confident that pressures on France will not affect nuclear cooperation with Iraq."

The Iraqi ambassador stressed his country's determination to proceed on this road and said: "Iraq is serious about proceeding to the end of this road, and when it began this march it took the worst consequences into consideration. Zionist and U.S. threats will not dissuade us." He cited Iraqi President Saddam Husayn's statement that "we cannot fight the United States in the United States, but if it comes to fight us in Iraq, we will be able to fight back."

The ambassador said that the assassination of the Egyptian nuclear scientist Yahya al-Mashadd in Paris will not delay the Iraqi nuclear program.

CSO: 5100

AUSTRALIA NEGOTIATING SAFEGUARDS PACT WITH FRANCE

Melbourne THE AGE in English 23 Jul 80 p 1

[Text]

LONDON, 22 July. — Australia was looking into claims that France had agreed to supply Iraq with 72 kilograms of highly enriched uranium — enough to make six or seven atomic bombs — it was learned here yesterday.

Sources said the issue was of considerable interest to Australia in relation to non-proliferation, and could have a bearing on any nuclear safeguards agreement between Australia and France.

In Canberra, a Foreign Affairs Department spokesman said yesterday that Australia always "kept an eye" on such sales by France. But he said no special inquiry was under way over this sale because Australia had not yet sold any uranium to France.

The spokesman said Australia wanted to know the position of the industry, and was negotiating a safeguards treaty with France.

He said Australia was well aware of French sales of enriched uranium to Iraq, as France had

helped build a research reactor in Iraq and had supplied material to fuel it.

But the issue of the proposed French deal with Iraq has raised a storm of protest in Britain with assertions that France "is acting irresponsibly in supplying weapons-grade material to a country in the unstable Middle East."

The French Government, which has been working on a process called "caramelisation", has claimed that the fuel is not in a form that could be used for weapons. However, development is still at an exploratory stage and the process has not yet been demonstrated or proven.

France has also pointed out that Iraq has signed the nuclear non-proliferation treaty, and as such is subject to reports by the international agency.

Israel is particularly concerned about the issue, and there have been allegations that Mossad, the Israeli secret service, is making an all-out attempt to foil Iraqi attempts to make nuclear weapons.

CSO: 5100

U.S. NUCLEAR POWER PLANT COMPONENTS TO BE BUILT IN KOREA

3K1000200 Seoul HAPTONG in English 0123 GMT 10 Jul 80

[Text] Washington, July 9 (HAPTONG)--Westinghouse Electric Corporation of the United States reaffirmed today its commitment to the economic development of the Republic of Korea with recent execution of agreements with Hyundai Heavy Industries for the local manufacture of certain nuclear power plant components. Robert E. Kirby, chairman of Westinghouse, announced today that the agreements had been reached between Westinghouse Nuclear Korea, a subsidiary, and the nuclear power division of Hyundai Heavy Industries for the manufacture in Korea of portions of the reactor systems and turbine generator for Korea nuclear power plants.

Hyundai will manufacture a large portion of the turbine generator sets for Korean nuclear units 7 and 8, some 46 components including generator frames, low-pressure turbine outer cylinders, moisture-separator-reheater tanks, piping and other items. Westinghouse turbine generator manufacturing and quality assurance representatives will be located at Hyundai facilities to assist in the localization program, Mr Kirby said. For Korean nuclear units 5, 6, 7 and 9 Hyundai will manufacture portions of the nuclear steam supply systems, which include tanks, equipment and component supports, portions of certain components such as the pressurizers, steam generators and fuel handling tools that Westinghouse has been manufacturing at its facilities in the United States, according to the announcement. Chairman Kirby stressed that Westinghouse has confidence in the future of the Republic of Korea as a sound country for investment and plans to actively assist Korean industry through investment or technology transfer.

With the beginning of winter, oil prices should be reviewed by taking into account such factors as world economy, inflation and purchasing power of main currencies, he said. It was not advisable to freeze prices of oil indefinitely, Al-'Utaybah said, adding that prices should be gradually increased to a level which industrial countries as well as developing nations can accept. Al-'Utaybah expressed hope that the members of the Organization of Petroleum Exporting Countries (OPEC) would work out long-term strategy at the OPEC summit to be held in Baghdad in November.

As for the Palestine problem, Al-'Utaybah said it was not true to say that Arab oil producers were putting pressure on oil consumers, using oil as a weapon to solve the problem. He hoped that Japan as well as the U.S. and European countries would have a direct dialogue with the Palestine Liberation Organization (PLO).

CSO: 5100

TORY DECISION ON NUCLEAR ARMS EXACERBATES UK ECONOMIC CRISIS

LD231001 Moscow PRAVDA in Russian 17 Jul 80 p 5

[Vasily Maslov "Commentator's Column": "Militarist Clamor"]

[Text] Britain's Conservative government is taking further steps along the path of arms race. Speaking in Parliament, British Defense Secretary F. Pym announced a cabinet decision to "modernize" the so-called "independent nuclear deterrent" by building a new generation of nuclear submarines equipped with American Trident nuclear missiles. Simultaneously, on the other side of the Atlantic, the White House announced that it was ready to sell the missiles to London.

The Tory government is also earmarking large appropriations to produce combat hardware for the British "Rhine Army" and, in particular, to develop new Challenger tanks. These programs are a component part of the efforts NATO is making to impart still stronger momentum to the arms race. It is clear that London's bellicose zeal can only poison the political climate in Europe still more and lead to a further growth in tension, to the detriment of the peoples' vital interests.

Many international commentators are drawing attention to the fact that the military preparations London is making in conjunction with Washington are ostentatiously contrasted to the Soviet Union's peace-loving efforts aimed at averting a slide into cold war, resuming constructive East-West dialogue and achieving military detente. As Britain's THE ECONOMIST magazine notes, it is no accident that one aim of the measures announced on the Thames is to "step up pressure" on the other NATO allies of the United States and Britain.

At the same time the militarist clamor is designed to divert British public attention from the further sharp exacerbation of the economic and social adversity the country is experiencing. The British Government intends to spend on the program to "modernize" nuclear forces alone about 5 billion pounds direly needed by the country's economy, which is sinking deeper and deeper into the abyss of crisis.

Suffice it to say that industrial production in Britain in March-May of this year showed a 3.4-percent decrease compared with the preceding 3 months. More and more schools and hospitals are closing in the British Isles because the money needed to maintain them is being switched to military needs. The cost of living is increasing and there is raging inflation. Unemployment is hitting a massive total of more than 1.5 million working people. Social conflicts are worsening.

Millions of Britons reject the Conservative government's militarist course. If it comes to power, the recently-published Labor Party draft manifesto says, Labor will not allow the new generation of American nuclear missiles to be deployed in Britain and will abandon the plans to modernize the present nuclear forces. The document contains a call for immediate ratification of the SALT II treaty and for new talks to be held with the aim of reducing both sides' nuclear weapons.

In fueling the arms race the British Tories are doing a disservice both to the cause of international peace and to their own people's interests. Such a course can only impede the strengthening of trust among the peoples and undermine Britain's prestige.

CSO: 5100

SEPTEMBER FORUM TO BID FOR NUCLEAR-FREE PACIFIC

Canberra THE AUSTRALIAN in English 18 Jul 80 p 2

[Text]

A BID to check the spread of nuclear power in the Pacific will be made at the Nuclear-Free Pacific Forum in Sydney in September.

The nuclear-free Pacific movement, started in the South Pacific islands, now interests anti-nuclear movements in several countries bordering the Pacific including Canada, Japan and Australia.

The May conference in Honolulu marked the first time delegates from rim countries had taken part in the movement.

Among the Australian delegates was Beverly Symons, secretary of the Association for International Cooperation and Development.

The forum will discuss how to lobby against and control missile testing, nuclear waste transport and nuclear submarines in the Pacific.

Ms Symons said the forum had been encouraged by the example of Palau in the Caroline Islands of Micronesia, which has adopted the world's first nuclear-free constitution.

It prohibits the establishment of foreign military bases and the storage or use of nuclear materials on the island or in surrounding waters.

A spokesman for the Department of Foreign Affairs said yesterday the Government did not support the proposal to set up a nuclear-free zone in the Pacific.

CSO: 5100

SOUTH PACIFIC FORUM ON NUCLEAR WASTE DUMPING

06141842 Paris AFP in English 1740 GMT 14 Jul 80

(Text) Tarawa, July 14 (AFP)--The South Pacific Forum has backed away from a strong stand against all nuclear waste dumping in the Pacific. But in a resolution aimed mainly at the United States and France, the dozen member states condemned any action which represents further exploitation of the Pacific for nuclear purposes in ways which disadvantage the peoples of the Pacific.

The forum countries urged the United States to defer its nuclear waste storage plans on islands like Palmyra, Midway, Wake. At the same time the Pacific states noted Washington's assurances "that this project would not be an ecological threat to Pacific waters." A move by the Cook Islands to strongly condemn the U.S., Japan and France for exploiting the Pacific as a nuclear waste disposal and nuclear test area was toned down. The final resolution did not mention nuclear testing.

Forum spokesman Sir Julius Chan of Papua New Guinea said members believed Japanese plans to dump nuclear waste in the Marianas trench were inside the international requirements for such dumping. Conference sources said New Zealand Prime Minister Robert Muldoon had intervened on Japan's behalf.

Earlier Australian leader Malcolm Fraser helped tone down the nuclear testing condemnation in the Cook Islands paper to the conference. While France was not mentioned by name, sources said the resolution was also a criticism of her continuing tests at Mururoa Atoll.

CSO: 5100

WORLDWIDE AFFAIRS

BRIEFS

IRAQ: DENUCLEARIZE INDIAN OCEAN--United Nations, (INA)--Iraq told the Indian Ocean committee that it always supported the denuclearization of the Indian Ocean, whether 't pertained to nuclear weapons inside the military bases of large powers, or on their nuclear submarines. Speaking before the committee, Iraq's representative said Iraq also supported the denuclearization of South Africa and the Middle East, Iraq is against the introduction of nuclear weapons into non-nuclear states, and believes that the superpowers must guarantee that they would not use nuclear weapons against non-nuclear states. It was also the responsibility of the littoral and hinterland states not to permit the introduction of nuclear weapons in their territory. /Text/ /JN301718 Baghdad INA in English 1710 GMT 30 Jul 80/

BRAZIL: NO URANIUM TO IRAQ--Itamaraty yesterday denied a report carried by the Lebanese newspaper AL-MOUSTAKBEL saying that Brazil will supply Iraq with "partially processed" uranium in addition to natural uranium. The Brazilian Foreign Ministry also denied the assertion made by the newspaper that the transfer of Brazilian nuclear technology was included in the Brazilian-Iraqi nuclear agreement upon the demand of Baghdad in exchange for the sale of additional amounts of oil to Brazil. Itamaraty explained that the nuclear agreement signed with Iraq provides for the supply of Brazilian natural uranium to that country, but that no shipment of the material has been made so far. As for the alleged supply of "partially processed" uranium, Brazil cannot supply it for the simple reason that the country does not have it. As for the demand that nuclear technology be exchanged for more oil, Itamaraty said that "that kind of condition was never imposed." Without giving numbers, Itamaraty confirmed the sale of Brazilian weapons to Iraq, but asserted that it does not know anything about an initiative to equip Iraq for the manufacture of Passat cars. /Excerpta/ /PY281731 Sao Paulo O ESTADO DE SAO PAULO in Portuguese 23 Jul 80 p 4/

JAPANESE OPPOSE SOVIET A-TESTS--Tokyo, July 28 KYODO--In a major turnabout from its past policy the Japan Council Against Atomic and Hydrogen Bombs (Gensuikyo) has decided to oppose also nuclear tests of the Soviet Union, China and other socialist countries if they are held during this year's anti-bomb convention. Gensuikyo, affiliated with the Japan Communist Party, decided on the new policy at a meeting Sunday of its standing directors in Tokyo. The meeting was held prior to the annual ban-the-bombs world convention starting August 2. Up to now, Gensuikyo had merely expressed "regret" over nuclear tests conducted by socialist countries. This has been one of the major reasons for the split in the anti-bomb movement in Japan. The meeting was held Sunday to decide what stand Gensuikyo should take in the event the U.S., the Soviet Union or other countries conducted nuclear tests during the anti-bomb conference. After debate, it was agreed that a stand opposed to such tests should be taken from the standpoint of working for an overall ban of nuclear weapons and that action should be taken if a nuclear test was conducted from the standpoint of protecting the unity of the anti-bomb convention. [as received/ Gensuikyo plans to notify its decision to its member organizations and formally approve it at a full directors' meeting on August 3. [Excerpt/ [CW180037 Tokyo KYODO in English 0006 GMT 28 Jul 80/

JAPANESE, U.S. NUCLEAR EXPERTS--Tokyo, July 10, KYODO--Japanese and U.S. nuclear experts will meet here Wednesday through Friday next week to discuss the U.S.-proposed plan to establish a used nuclear fuel storage center on a Pacific island, government sources said Thursday. Japan and the U.S. will possibly agree to start feasibility studies of the plan which calls for setting up the storage center on either Palmyra, Wake and Midway Islands, the sources said. Japan and the U.S. will start the studies this summer if the two countries reach an agreement, the sources said. The U.S. proposed the plan two years ago to place tight controls on used nuclear fuel. South Korea, Canada and other countries are expected to participate in the project to bring together used nuclear fuel produced at nuclear power plants in each country. [Text] [OW100317 Tokyo KYODO in English 0251 GMT 10 Jul 80]

PERU-U.S. NUCLEAR AGREEMENT--Peru today became the third Latin American country to enter the nuclear field after signing a cooperation agreement with the United States whereby the latter agrees to provide Peru with fuel, materials and technology to develop atomic energy. Peruvian Ambassador Alfonso Arias Schreiber yesterday signed at the U.S. State Department a cooperation agreement on the peaceful uses of nuclear energy with the U.S. Government. Washington diplomatic sources have pointed out the fact that the Peruvian-U.S. agreement was signed virtually only 1 month after the signing in Buenos Aires of the Argentine-Brazilian nuclear cooperation agreement by Presidents Jorge Rafael Videla and Joao Figueiredo. [Text] [PY271441 Tacna Radio Tacna in Spanish 1200 GMT 27 Jun 80]

U.S.-JAPANESE AGREEMENT--Tokyo July 18, KYODO--Japan and the United States agreed Friday to carry out a joint feasibility study on a plan to dump radioactive refuse from nuclear power plants into West Pacific in the coming 2 years. The most promising dumping sites are believed to be Midway, Wake and Palmyra Atoll line in the Pacific Ocean. The agreement on the issue was reached on the final day Friday of the 2-day Japan-U.S. consultation on the establishment of spent nuclear fuel deposits. Details of the planned feasibility study will be made at the next meeting of Japanese and American nuclear experts in October in Washington. The joint study will focus on such subjects as safety, environmental impact, legislative affairs and economical aspects of the used nuclear fuel deposits. Some conservationists on the Mariana and other islands in the Southern Pacific have already lodged protest with the Japanese and American governments. The Science and Technology Agency and Fisheries Agency of Japan are negotiating with fishermen's group on trial dumping in waters 900 kilometers north of the Marianas. Informed sources said. [Text] [OW181301 Tokyo KYODO in English 1235 GMT 18 Jul 80]

U.S. SENATE NUCLEAR DISCUSSION--U.S. Senator (Joseph Neigh) [as heard] has told the Senate Foreign Affairs Committee in Washington that it should not adopt a rigid attitude toward the supply of enriched uranium to India. (Mr Neigh), who is also the under secretary for nuclear proliferation [title as heard] [word indistinct] suggested a compromise formula which would lead to immediate approval of the release of the first shipment of 20 tons of enriched uranium to Tarapur and also approve the second installment in principle. He said that according to his information, India is not proposing to launch any program to manufacture nuclear weapons after the peaceful nuclear explosion in 1974. Earlier, appearing before the committee, Senator Moynihan, former ambassador to India, made it clear that India is a world power and will remain so. He attributed the deterioration of relations between India and the United States to various past decisions of the Senate. Mr Moynihan made it clear that India would shape its foreign policy with its basic interests in mind, irrespective of whether the United States would supply nuclear fuel. Mr Moynihan also said that there is a contract with India on Tarapur. Any U.S. breach can lead to a serious legal case. President Carter had approved two sales of enriched uranium to India. Congress can block the supplies before the 1st of October. [Text] [BK240634 Delhi Domestic Service in English 0240 GMT 24 Jul 80]

JAPANESE-CANADIAN NUCLEAR COOPERATION--Tokyo July 20 KYODO--A government mission will visit Canada Monday next week for consultations in preparation for the approaching entry into force of a revised bilateral agreement on nuclear cooperation, a Tokyo economic daily reported Sunday. The atom-for-peace agreement between Japan and Canada, which calls for stronger provisions against nuclear proliferation, was signed 2 years ago. While in Canada until early next month, the mission will confer with Canadian officials over the possible imports of natural uranium from Canada and cooperation in heavy water reactor technology, the NIPPON KEIZAI SHIMBUN reported. The mission will be made up [of] representatives of the Ministry of International Trade and Industry (MITI) and the Agency of Science and Technology. The agency has no intention at the moment of importing the Canadian heavy water reactor, Candu. On the other hand, MITI still is in favor of importing the Candu. The daily quoted MITI and agency officials as saying that Candu import is not placed on the agenda of the coming meeting with the Canadian Government and the Atomic Energy of Canada Ltd. The officials added, however, that Canadian representatives would almost certainly bring up the matter. The mission is also expected to visit atomic research institutions. [Text] [OW200845 Tokyo KYODO in English 0826 GMT 20 Jul 80]

FRENCH-INDONESIAN NUCLEAR COOPERATION--France has offered a nuclear laboratory and reactor center for the development of science and technology and for the training of Indonesian personnel in the nuclear field. This was stated by visiting French high commissioner for nuclear energy (Jean Farlac) in Jakarta today. He said it would be better for Indonesia to develop several small-scale nuclear-powered electricity plants so as to easily overcome accidents that might eventually occur. According to a survey conducted earlier, by 1989 Indonesia will be ready to operate a nuclear-powered electricity plant with a capacity of 600 megawatt to be located at (Lasung), Central Java, to supply electricity to local industries in Java. (Jean Farlac) said that Indonesia's plan to develop nuclear-powered plants to meet future electricity needs as a means to economise fuel oil and coal is a correct step. [Text] [BK051149 Jakarta Domestic Service in Indonesian 1500 GMT 4 Jul 80]

NONALIGNED NUCLEAR MEETING ENDS--The non-aligned coordinating countries on the peaceful uses of nuclear energy ended their first meeting yesterday, a day after the conference was scheduled to end. Although the contents of document approved by the group yesterday were not made public, as they will be submitted to next year's meeting of foreign ministers of non-aligned countries, a statement was released indicating the conference touched on such areas as research and development, mineral exploration and exploitation, radioisotopes and radiation sources, radiological protection and nuclear safety. Bilateral and multilateral cooperation projects were also explored. The conference concerned itself too with "distortions" in the International Atomic Energy Agency's application of control requirements, saying that "adequate balance between the promotional, regulatory and control activities of the agency should be achieved." The group also condemned "the damaging effects of the conditions imposed by the 'London Club' and other supplier countries on international exchange and cooperation" criticizing unilateral and retroactive decisions, the imposition of the right of 'prior consent' or undue restrictions on technology transfers. [Text] [PY050344 Buenos Aires HERALD in English 4 Jul 80 p 11]

HUNGARIAN COMPUTERS FOR LIBYA--For the first time, Hungarian industry will export a complete computer together with a domestically developed special system program. As a major undertaking of the Chemimas enterprise, a Videoton R-10-type installation, along with a program by the Central Physics Research Institute, will be sent to Libya. There, the tasks of control of a research-instructional nuclear reactor, to be set up by Soviet firms, will be performed by the Hungarian program and computer. Competitive negotiations preceded the conclusion of a contract. The Hungarian offer outbid those of prominent U.S., French and Japanese firms. [Text] [Budapest NEPSZABADSAG in Hungarian 19 Jul 80 p 7 AU]

CSO: 5100

INTER-ASIAN AFFAIRS

PAKISTAN-INDIA NUCLEAR CONTROVERSY CONTINUES

Carter Decision on Uranium for India

BK361247 Karachi Overseas Service in Bengali 0215 GMT 30 Jul 80

[Unattributed commentary]

[Text] When India carried out a nuclear test in May 1974, the then Prime Minister Indira Gandhi said that there was no reason to be upset about the explosion; India had carried it out to achieve nuclear capability and this capability would be utilized for peaceful purposes only. Since then, however, India has said that it will continue to carry out such explosions.

Mrs Indira Gandhi, who now once again holds the office of prime minister, made a statement in Parliament that India's nuclear capability may be utilized for military purposes if needed. This statement indicates India's intentions.

Despite this, U.S. President Jimmy Carter announced last month that he had issued orders to supply 38 tons of enriched uranium to India. It was Jimmy Carter himself, after his election as U.S. President, who promised that he would do his best to check the proliferation of nuclear weapons. In 1978 the United States enacted a law to suspend all cooperation with countries which do not agree to international safeguards for nuclear research. This thought has compelled Pakistan not to acquire nuclear capability. However, ignoring the law, Jimmy Carter decided to supply uranium to India in a bid to please that country. On the other hand, the U.S. Nuclear Regulatory Commission issued a unanimous directive saying that as India refuses to sign the nuclear nonproliferation treaty and has also rejected the proposal to subject its nuclear research to international supervision, the supply of uranium to it is contrary to the 1978 law. And finally, India also carried out a nuclear explosion in 1974. President Carter rejected the decision of the commission by use of his special powers and granted permission for the supply of 38 tons of uranium for India's Tarapur reactor. Unless the U.S. Congress nullifies the order within 60 days India will receive the nuclear material and will be able to make an atom bomb if it so wishes.

While a majority of the U.S. House of Representatives are expected to oppose President Carter's decision, it is difficult to know about the Senate. Congress as a whole probably will not support President Carter's step as certain influential senators are opposed to his decision.

President Carter has put forward only one reason for the change in his attitude. According to him, he is interested in satisfying Indian Prime Minister Mrs Indira Gandhi for the sake of stability in South Asia. Since the Soviet Union has provided India with \$1.6 billion worth of military aid, the United States is not willing to impair its relations with Mrs Indira Gandhi by refusing to supply uranium to India. President Carter has said that India's willingness to develop good relation with the United States has been reflected in the change in India's policy on the Afghanistan issue. According to President Carter's view, this will prove helpful in checking Soviet influence in South Asia.

However, the U.S. press has not accepted this logic. The Washington POST, in a 20 June editorial, stated that unless Congress opposes the decision there is no doubt about the serious consequences of supplying uranium to India. Under the circumstances how can Pakistan be approached to abandon its nuclear program? Nor would it be justifiable to ask South Africa and Argentina to accept international safeguards. The paper said that the changed regional situation has also been put forward as a justification for Carter's decision and it has been argued that more importance should be attached to the changed situation than to the question of nuclear nonproliferation.

The New York TIMES, in its 22 June editorial, stated that the supply of uranium to India is an issue demanding wise judgments by the United States. Whatever attempts are made to (tackle) the issue, the supply of uranium to India will certainly weaken efforts to protect the world from nuclear destruction. It remains to be seen which country will be affected most by this step and which country will be blamed.

The WALL STREET JOURNAL wrote that no other way will better destroy the stability of South Asia than by creating danger to neighboring Pakistan and China by supplying uranium to India.

The Atlanta JOURNAL stated in an editorial that the uranium will certainly be utilized for producing nuclear arms and it will not help in creating cordial relation between the United States and India. This will help the emergence of a nuclear [word indistinct] which will turn out to be a danger to the entire world.

Pakistan Denies Indian Charges

OW111726 Beijing XINHUA in English 1648 GMT 11 Aug 80

[Text] Islamabad, August 11 (XINHUA)--Pakistani Foreign Minister Agha Shahi regretted that India continues to disregard Pakistan's assurances and persists in making unfounded allegations against the nature and intent of Pakistan's nuclear programme.

Agha Shahi made this remark last night at the Islamabad airport to AFP before his departure for New York when asked to comment on Indian Prime Minister Indira Gandhi's statement in parliament on August 7th that Pakistan intended to manufacture nuclear weapons. Shahi reiterated once again that "Pakistan's nuclear research and development programme is devoted exclusively to peaceful purposes." He said India has the intention "to pursue the nuclear weapons option in furtherance of her bid for great power status."

Replying to another question on Mrs Gandhi's remarks regarding the so-called dangers of an arms build-up by Pakistan, Shahi said the alarm raised "is clearly intended to divert attention from India's own programme of massive armament." He said during the past three years, "India has entered into arms deals with the West as well as with the Soviet Union worth several billion dollars." He said "India is not threatened by any of its neighbours and even if it were it possesses the means to take care of itself."

Review of Pakistan, India Statements

OWO30750 Beijing XINHUA in English 0735 GMT 3 Aug 80.

[Text] Islamabad, August 3 (XINHUA)--The spokesman of the Pakistan Foreign Office reiterated yesterday evening that his country's modest nuclear research programme was devoted exclusively to peaceful purposes. Pakistan had no intention of developing nuclear energy for military use, he added. The spokesman was commenting on a statement made by the Indian minister for external affairs in the upper house on August first. The Indian minister was reported to have said that the acquisition of nuclear weapons capability by Pakistan will only increase tension in the region. The spokesman suggested that India agree to the establishment of a nuclear-weapon-free zone in South Asia. He voiced concern over recent official statements in the Indian parliament that India reserved the right to conduct more nuclear tests.

CSO: 5100

INTER-ASIAN AFFAIRS

BRIEFS

FRASER ON JAPAN'S NUCLEAR WASTE--Australia has repeated its concern about Japanese plans to dump nuclear waste in the Pacific. Speaking on his arrival in Guam, the prime minister, Mr Fraser, said his country was concerned about anything that would have an effect upon the Pacific. Mr Fraser was expected to discuss the matter with Guam's acting governor, Mr Joseph Ada. Japan plans to dump nuclear waste in the ocean, 1,000 kilometers north of the Mariana Islands. Guam and the Mariana Islands have already protested about the plan, and Australia has made two official inquiries about it to Japan. Radio Australia's Tokyo correspondent, (Walter Hamilton), says that because of the unexpected criticism, the Japanese Government is considering sending a mission to Australia and other Pacific nations to explain its scheme. (Hamilton says) Japan wants to begin dumping the nuclear waste late next year starting with 10,000 drums of water and clothing that had become affected by radioactivity. [Text] [OW111335 Melbourne Overseas Service in English 1130 11 Jul 80]

INDIA-PAKISTAN NUCLEAR FEARS--The annual report of the Ministry of Defense for the year 1979-80 says reports of Pakistan's efforts to acquire nuclear weapons capability and transfer of Western military technology to China calls for constant and close vigil on the part of India. Events in Afghanistan have brought superpower confrontation closer to India's neighborhood and the increased great power presence in the Indian Ocean has brought intervention closer to the country from yet another direction. The report says the government during the last few months initiated intensive discussion with a number of countries to defuse the situation and they have started showing results. The report says India also wishes to improve relations with China. [Text] [BK071628 Delhi Domestic Service in English 1530 GMT 7 Jul 80]

CSO: 5100

ADELAIDE CITIZENS PROTEST URANIUM CORE FARM

Canberra THE AUSTRALIAN in English 21 Jul 80 p 2

[Article by Ted Knez: "Public Wins Uranium Store Fight"]

[Text] People at Maplestone in Adelaide, frightened by uranium, became angry when they discovered Western Mining Corporation wanted to stockpile core samples in their neighborhood.

So they picketed and protested. Mothers with babies in prams blockaded the company's proposed site.

And despite assurances on safety from WMC, the West Torrens Council sided with the protesters last week and reversed the decision which would have allowed the company to set up its "core farm."

It was a remarkable victory for the public over big mining interests.

WMC is already stockpiling uranium cores from Roxby Downs at a similar site in Lonsdale, south of Adelaide.

The samples are rock hard and laid out on open trestles in a yard surrounded by a high wire fence.

The Campaign Against Nuclear Energy (CANE) wants to banish WMC and the core farm from the light industrial area, which is only a few kilometres from heavily-populated Christie's Beach.

A spokesman for CANE, Mr Mark Boughey, claimed that the exposed cores would weather, break down and release radon gas, while increasing back-ground radiation in the area.

THE AUSTRALIAN invited Mr Bernie Farrow a lecturer in applied geology at the South Australian Institute of Technology, to measure the radiation level in and around the uranium stockpile.

Using a scintillometre, an instrument more sensitive than a geiger counter, Mr Farrow recorded levels equal to "background radiation."

Radiation in the core farm was no higher than levels Adelaide is exposed to daily from natural and man-made sources.

Mr Farrow said afterwards: "The cores probably haven't been here long enough to break down and weather.

"Even then, there's not much uranium in them to leak out. Then again, who knows. I wouldn't want a core farm in my neighborhood."

Mr Boughey said he hadn't expected to find a "hot spot."

He said: "We're concerned with the long-term effects; the possible increase in background radiation.

"Besides, WMC hasn't warned the local community that it's storing uranium core samples in the area."

There are no warning signs; in fact no signs of any description on the fence around the core farm.

But one sign, over the kitchen sink in the site office, tells the story. "Caution. Use face mask, ear muffs and goggles at all times when cutting core. Wash hands thoroughly after cutting and handling core."

Nearby, a list of procedures from the company's radiation safety officer also warns that the core samples are not to be toyed with.

"Sample preparation personnel should shower and change into off-duty clothes before leaving the premises," it says.

CSO: 5100

URANIUM ENRICHMENT PLANT DEEMED LIKELY IN 10 YEARS

Melbourne THE AGE in English 26 Jul 80 p 14

[Article by Peter Roberts]

[Text]

Australia will have its own uranium enrichment plant within 10 years, uranium expert, Mr Ron Wilmshurst, said yesterday.

The plant would probably be built in South Australia or Queensland and would be capable of enriching most of Australia's yellowcake production. Mr Wilmshurst, the technical director of Australian Mineral Development Laboratories, said two international groups were keen to enrich uranium in Australia.

Enriching uranium to uranium hexafluoride is a key step in the production of fuel rods for nuclear power stations.

"I wouldn't have any fears at all about uranium enrichment. I would be quite happy to live next door to an enrichment plant," he said. Mr Wilmshurst, the chairman of the SA Government's uranium enrichment committee, spoke at a Melbourne meeting of the Society of Chemical Industry on Thursday.

He predicted that an Australian plant would use centrifuge enrichment, which uses less than a twentieth of the energy needed to enrich uranium than older processes.

He supported a call from Professor Ted Ringwood, of the Australian National University, for Australia to set up a full-scale nuclear fuel industry. Professor

Ringwood wants Australia to control its uranium from mining to waste disposal as a guarantee against proliferation of nuclear weapons.

In a pamphlet to be published this month, Professor Ringwood, the inventor of the synthetic rock process for immobilising radioactive waste, suggests that Australia make uranium fuel rods and lease them overseas. Australia would then take back the spent fuel for re-processing and eventually bury the waste in deep drill-holes in the outback.

Mr Wilmshurst said: "I would think it is a good idea from several points of view. Whether it would be acceptable to power utilities overseas is another story."

But according to the Friends of the Earth group Australia's uranium mining industry could be stalled before it gets off the ground. Mr John Hallam, a FOE spokesman, said demand for Australian uranium by 1985 would be far less than 6300 tonnes a year. Australia would be producing up to 19,000 tonnes by then.

"Uranium producers have taken estimates from 1974 which were very optimistic and made their investment decisions from there," Mr Hallam said. "Producers already have on line capacity which is bigger than the nuclear industry will ever require."

INVENTOR CLAIMS CAR PROPELLED BY NUCLEAR REACTION

Canberra THE AUSTRALIAN in English 23 Jul 80 p 9

[Article by John Francis: "Hydrogen Power Spotlight Turns to Transport"]

[Text]

THE irrepressible Joh Bjelke-Petersen, Premier of Queensland, has given his personal as well as his Government's enthusiastic support to the "Horvath hydrogen car."

This is the water-powered car which would revolutionise the motor car industry and completely change world politics and strategies...

So far, Mr Horvath has not opened the boot of his car — what hidden mysteries lie there?

Is it a "controlled nuclear reaction" as claimed at the launching in the city square of Brisbane or just a couple of bottles of hydrogen gas, or the powder hydride, which is used in hundreds of cars around the world?

Professor David Whitehead of the University of Queensland's physics department, after being refused permission to look in the boot of the Horvath car, said: "The nuclear reaction claimed by Mr Horvath was impossible and the car must be powered by stored hydrogen of some sort."

Here then are some facts on hydrogen power. It has not had much publicity.

It is certain that liquid hydrogen will be used as an aviation fuel by 1985. All the technical problems have been solved. The only requirement now is to complete the development work.

The study of liquid hydrogen as a fuel began in earnest in 1972, following the now-famous "Stuttgart symposium" attended by the United States, Canada, Britain, France, West Germany, Saudi Arabia, Switzerland and Japan.

The symposium agreed that a joint program similar in structure to the Satellite Joint Program, be carried out under the management of an international energy agency. As part of this program, a hydrogen-powered airliner should be built and be flying probably by 1985. The Lockheed Corporation is doing most of the engineering work.

The intention is for Britain, the United States, West Germany and Saudi Arabia to build and operate a fleet of liquid-hydrogen powered planes.

Canada has a direct interest. The cheapest hydrogen in the world can be produced using its enormous hydro-electric facilities.

The first route proposed will operate between Pittsburgh, Birmingham, Frankfurt and Riyadh. The European terminals are close to coal resources, as

is the American terminal, while Saudi Arabia has natural gas — all of these being viable sources of hydrogen.

So far, hydrogen has not taken off as a fuel — if one can use that phrase — because of the high risk of explosion. This has been overcome to some extent by the development of an insulant called Kevlar.

Hydrogen has some enormous advantages over hydrocarbon fuels. For instance, the energy content of hydrogen is 2½ times greater than hydrocarbon fuel.

All that still needs to be done is the perfection of a new insulant, the development of a new metal to compress the

hydrogen into a manageable volume and the design of a fool-proof hydrogen pump, which can run for two or three years without a failure.

Such challenges were common in the Apollo moon project. They are difficult enough to be challenges but they are not insurmountable.

And Joh and the Horvath hydrogen car? The verdict has to remain open until the boot is opened (after patents are awarded).

But if you are a gambling man and approach the Lockheed Corporation, which is doing all the work on hydrogen fuels for aviation, you should be able to obtain "long odds and civility."

CSO: 9100

GUARD ASKED ON URANIUM TRANSPORT, LABOR TROUBLES NOTED

Brisbane THE COURIER-MAIL in English 26 Jul 80 p 3

[Text]

SECURITY should be tightened in the transport of uranium yellowcake, the Opposition mines and energy spokesman, Mr Vaughan, said yesterday.

He said the yellowcake, a raw ingredient for atomic weapons, was transported by train over more than 1000 km between Mary Kathleen and Brisbane for export.

The train could be hijacked easily in a remote area and the yellowcake stolen. "It might not be missed for some time," Mr Vaughan said.

He said the fact that yellowcake stockpiles were not guarded by armed men illustrated the "it-could-never-happen-here" attitude.

"But now that it has been brought to attention it could happen," Mr Vaughan said. "Mary Kathleen Uranium Ltd seems to think its stockpiles are secure by virtue of their isolation."

He said a police guard was placed on the uranium when it reached Mayne Junction in Brisbane and waited in railway trucks for export. But this was

to keep away protesters more than for any other reason.

Mr Vaughan said Commonwealth police should be given the responsibility of guarding the stockpiles and transport of yellowcake.

Electrical Trades Union members at Mary Kathleen have been told they are to leave the uranium mine within 24 days.

The official notification came this week in a letter from the ETU state secretary Mr Neal Kane.

The letter is the first official notification the Mary Kathleen members have had since ETU national secretary Mr Cliff Doonan said three months ago they would be asked to leave the site.

It states the members have 21 days to tell the union of their intentions and 28 days to withdraw their labor.

Failure to leave would result in the members being proceeded against in accordance with union rules, the letter said.

The Mary Kathleen members have replied with a letter containing a set of questions to Mr Kane and copies of the letter to local politicians.

CSO: 5100

URANIUM MINE CONTRACTS SALES TO FOREIGN FIRMS

Sydney THE SYDNEY MORNING HERALD in English 19 Jul 80 p 36

[Article by J. N. Pierce, energy and resources reporter: "Deal Gives Ranger a Long Life"]

[Text]

The Ranger uranium project will start up in 1982 with its planned initial annual output of about 3,000 tonnes of uranium oxide fully covered by long term sales contracts.

Its two present corporate partners, Peko-Wallsend and EZ Industries, have signed similar contracts covering the total sale of 4.5 million lb (2,041 tonnes) of uranium oxide to a US power utility over a nine-year period starting in 1982.

The sale is worth about \$140 million at present uranium oxide prices but the contract is likely to have a fluid base taking account of world prices and escalation.

The US deliveries of about 227 tonnes a year will be added to already negotiated annual deliveries of 130 tonnes to Japan and 227 tonnes to South Korea.

But the major off-take will be the 2,500 tonnes a year expected to be bought by the Japanese and West German-Swiss groups taking up the 25 per cent foreign equity in the proposed Ranger company, Energy Resources of Australia Ltd.

ERA, which was formed recently to acquire the interests of Peko (25 per cent), EZ (25 per cent) and the Australian Atomic Energy Commission (50 per cent), is working on the final stages of a prospectus which will offer the Australian public a 14 per cent equity.

Peko and EZ will each have interests of 30.5 per cent and the customer-shareholders are expected to be a Japanese group made up of C. Itoh and the Kansai, Kyushu and Shikoku Electric companies with 10 per cent and a European group headed by Urangewerkschaft with 15 per cent.

The sale announced yesterday is unrelated to equity participation in ERA. It follows a similar contract written last November with the Korea Electric Co covering the delivery of 2,268 tonnes (2,500 short tons) over the 10 years from 1983.

The Ranger partners are already making deliveries under contracts totalling 3,300 tonnes written in 1972 with Chubu Electric and Kyushu Electric of Japan.

The contracts run from 1977 to 1986 and deliveries are being satisfied at present by uranium oxide borrowed from the Aus-

tralian Atomic Energy Commission's stockpile at Lucas Heights.

This borrowed yellowcake, which could total more than 1,500 tonnes by the time the Ranger mine comes into production in 1982, will have to be repaid to the AAEC.

Added to contractual commitments, these repayments will mean that any further contracts written for Ranger uranium oxide would involve an expansion towards to ultimate annual target output of 6,000 tonnes.

The US power utility is the wholly owned Indiana and Michigan Electric Power Co subsidiary of American Electric Power Co, which controls one of the largest power grids in North America.

Its operations are mainly in Ohio, West Virginia and Indiana but extend into the neighbouring States of Michigan, Tennessee, Kentucky and Virginia.

Yesterday's statement said that deliveries under the contracts would be made in accordance with the existing bilateral safeguards agreement between Australia and the United States. The contracts are subject to Australian Government approval.

BRIEFS

LABOR PARTY WARNING--Canberra: Labor front-bencher Tom Uren says that Australians should think again before investing in the local uranium industry. Investors should note that if Labor was elected to government it would repudiate any commitment of the Fraser government to the mining and export of uranium, Mr Uren said. He was responding to suggestions in the Press that the new company that will take control of the Ranger uranium project--Energy Resources of Australia Ltd--would soon be floated. Labor's policy would apply to any approvals for uranium mining or export granted by the Government to the Ranger partners of the new company, Mr Uren said. His warning came during a speech at the Labor Party dinner in Unley, SA, on Saturday night. Extracts of his speech were released in Canberra. Mr Uren said that Labor adopted its uranium policy in July 1977 because of the many unresolved problems of uranium mining and nuclear power. "Since then many events, including the Three-Mile Island accident, have shown the industry to be riddled with such problems and that solutions are not near." It was particularly disturbing that the United States and Japan now proposed to dump nuclear waste in the Pacific region. [Text] [Perth THE WEST AUSTRALIAN in English 21 Jul 80 p 40]

LUCAS HEIGHTS REACTOR--The production of radioisotopes at Lucas Heights for medicine and industry, halted by a nine-month shutdown of the main nuclear reactor, is now back to normal. A spokesman for the Australian Atomic Energy Commission said yesterday that the reactor had resumed operation last month. The reactor was shut down last September for what was to have been a two-month routine overhaul, but several parts of its cooling system were found to be leaking. The commission decided to replace all the parts, called bellows. The job was expected then to take until March. Completion of the repairs had been delayed because of difficulty in getting equipment, the spokesman said. [By Richard Eckersley] [Text] [Sydney THE SYDNEY MORNING HERALD in English 16 Jul 80 p 16]

CSO: 5100

CARTER DECISION ON NUCLEAR FUEL SHIPMENT DISCUSSED

'TIMES OF INDIA' Comment

REF: 141 Delhi THE TIMES OF INDIA in English 21 Jan 80 p 8

[Editorial: "A Welcome Move"]

[Text] President Carter's decision to ignore the unanimous verdict of the Nuclear Regulatory Commission (NRC) and approve the pending shipments of enriched nuclear fuel for the Tarapur atomic power station (TAPS) reflects a judicious perception of U.S. interests. Under the Indo-U.S. agreement on Tarapur, signed in 1963, Washington is obliged to supply fuel throughout the 10-year life of the plant. The accord was approved by the U.S. Senate and has thus the force of a treaty. The NRC's argument that approval of the shipments would defeat the purposes of the U.S. Nuclear Non-Proliferation Act, 1975, was both irrelevant and untenable. Irrelevant because all long-term international agreements would become meaningless if, as the NRC presumes, they can be abrogated by subsequent national legislation. Untenable because New Delhi has repeatedly made it clear that if the U.S. unilaterally abrogates the Tarapur accord, it would be free to reprocess some 200 tonnes spent fuel from the station in the Rs. 10-crore facility which is lying idle at the moment close to it. That would yield enough plutonium for several fission-type nuclear explosives and thus thwart the very objective that the NRC has ostensibly in mind. And if the NRC's objective was to cripple Tarapur by denying the fuel, it was unlikely to succeed in that aim either. Indian scientists have already mapped out a strategy for salvaging "reasonably good" rods of irradiated fuel from the storage pool at Tarapur to run the station at a slightly reduced power for about a year and for fueling it thereafter with a mixed oxide of plutonium and uranium. Plutonium extracted from the spent fuel at TAPS would suffice to keep the plant going till the late eighties.

President Carter's decision can still be annulled by the Congress by a two-thirds majority and the so-called hawk in the Senate as well as the House of Representatives are already said to be mustering their forces to defeat his move. In a bid to overcome their opposition in the committee hearings earlier, the administration officials have not only underlined the need for the U.S. to honour its contractual obligations but also stressed the importance of doing so "particularly after the Soviet thrust into Afghanistan". This is a valid argument.

'THE HINDU' Comment

00041937 Madras THE HINDU in English 21 Jun 80 p 8

[Editorial: "Tarapur and the U.S. Congress"]

[Text] The decision as to whether or not India will get the next shipment of enriched uranium fuel for the Tarapur powerplant is once again in the hands of the U.S. Congress. It is in fact a repetition of what happened in 1978. If there is any difference between now and 1978, it is that Mr. Carter is a much weaker president and the present opposition within Congress is a much stronger one, speaking in political terms. It seems that this time around the hawks who use the fear of proliferation as an excuse to curb even the entirely legitimate and peaceful application of nuclear technology by developing countries such as India have joined a number of well-meaning liberals in both houses of Congress in their bid to thwart Mr. Carter's move to unfreeze the Tarapur fuel supply.

The White House, the State Department bureaucracy and members of Congress all know that India has no intention of acceding to the plainly discriminatory provisions of the Nuclear Non-Proliferation Treaty [NPT] or to the even more one-sided fullscope safeguards contained in the U.S. Nuclear Non-Proliferation Act [NNPA] of 1978. They know, too, that despite the chronic and unconscionable delays in supplying Tarapur's needs (and these have seriously affected not only power generation schedules but also the overall atomic energy programme), India has for its part abided by every comma in the agreement. It has not tried to reprocess the spent fuel which is piling up at Tarapur, nor has it tried to obtain fuel from other sources.

If India has not exploited U.S. prevarications on the question of actual supplies of the fuel for abrogating the agreement so that it can take an entirely new course, thus freeing Tarapur from its dependence on that country, that is because it still believes Indo-U.S. cooperation can survive the current disagreements over ends and means. The U.S. obsession over nuclear proliferation seems pointless because the cure for the "ill" does not lie in the one-sided and unacceptable solution provided by the NPT and the NNPA.

CSO: 5100

GANDHI DISCUSSES NUCLEAR WEAPONS, OTHER ISSUES

BE190223 Delhi Domestic Service in English 0830 GMT 19 Jul 80

(Text) The prime minister told the Lok Sabha today that while India is committed to the peaceful use of nuclear energy she would do everything possible to see that her scientists are enabled to gather the latest knowledge in the field. Mrs Gandhi was replying to the debate on the Defense Ministry's budgetary demands for grants when the house later voted.

The prime minister said India's goal is total self-reliance. We are bending all energies to this end, she added. But self-reliance does not preclude purchases abroad. India has always pursued the wise policy of not depending only on one country.

The prime minister referred to the demand during the discussion that India should make the nuclear bomb and asked: Can the possession of a few bombs really prove a deterrent? She referred to reports about Pakistan's efforts to make the nuclear bomb and expressed the hope that Pakistan leaders would honor the assurance that this is not so. Absence of an opportunity of free expression in that country should not embolden its rulers to be oblivious to the implication of such step.

Referring to the Jaguar deal, the prime minister said that India would adhere to the memorandum of understanding on the project. But the discretion that the memorandum allowed us will be exercised by the government in the interest of the country.

Mrs Gandhi's reply covered a wide range of current international problems, particularly those having a bearing on the security aspect of India. Among these were the developments in Afghanistan, the Indian Ocean, slowing down of detente and attempts by some big powers to interfere in the internal affairs of other countries.

She said any form of domestic unrest weakens our security, especially if it occurs in border areas. It is the more dangerous because it may provide a cover for kind of dangerous element. The prolonged agitation in northeastern India has put all kinds of ideas in the heads of some people. Articles have appeared in the press abroad depicting the movement as a secessionist struggle and hoping that India's wings would be clipped. Amidst cheers, she declared that nobody in India will countenance anything that will effect the country's interest.

Mrs Gandhi stressed the importance for India to be ready for any eventuality. She said some alignments seem obvious today, but one cannot guess what new combination one may have to confront in a future conflict. The Indian Ocean has ceased to be an area of friendship. Events in Afghanistan have created serious instability much too close for our comfort. India will continue its endeavors for a political solution of this problem.

She declared that the object of India's defense is not war, but peace. However, she made it clear that whoever threatens a war on us will be up against a strong defense force and a resolute nation.

CSO: 5100

ATOMIC ENERGY DEPARTMENT URGED TO REVAMP SETUP

BK290625 Delhi INDIAN EXPRESS In English 18 Jul 80 p 6

[Editorial: "Nuclear Projects"]

[Text] The proposal to set up two more atomic power stations comes at a time when the overall performance of the Department of Atomic Energy [DAE] is generating little confidence. While no one will deny that India has more than enough trained manpower and indigenous raw material for many additional nuclear power plants, the DAE's capability for timely execution of its plans remains questionable. At present atomic energy's contribution is just about 2 percent of our total power consumption and if the DAE continues to function in its usual lackadaisical manner this figure is unlikely to increase significantly in the next five or ten years. Hence, this department should first revamp its own set-up to ensure speedy completion of its several ongoing projects which have been already delayed by three to five years before starting any new power plants. While some problems like the interrupted fuel supply from the U.S. for Tarapur were unavoidable, the frequent and prolonged failures at the Kota plant are inexcusable.

There is no doubt that it is vital quickly to raise the production of heavy water which is needed in large quantities as moderator for most of the new atomic power plants. Hopefully, the new process being used at the Kota plant for producing heavy water will prove more satisfactory than the synthesis-gas process used in earlier plants. Timely completion of four new heavy water plants is essential for operating new power stations. However, the DAE's ultimate objective should be to perfect the breeder technology which alone promises true independence for India in the field of nuclear energy.

It does not need an elaborate analysis to show that the weakest link in India's atomic power programme has been an over-reliance on external supplies of fuel and sophisticated equipment. Had early efforts been made to develop indigenous processes for producing sufficient heavy water, enriched uranium for the Tarapur plant and special fuel for the breeder reactor at Kalpakkam, the country's nuclear energy programme would have been on a sound footing by now. It is still not too late to strive for self-reliance in these matters.

CSO: 5100

JAPAN

BRIEFS

NUCLEAR GENERATOR RESUMES OPERATION--Tokyo 28 July KYODO--The nuclear safety commission Monday approved Kansai Electric Power Company's plan to resume commercial operation of its nuclear-powered electric generator at Mihama, Fukui Prefecture, which was shut down 5 years ago because of rusted pipes in the steam generator. The 340,000-kilowatt-hour generator undergoing tests since April will go into full commercial operation this fall, a government spokesman said. The commission said in March that resumption of the No. 1 generator at the Mihama nuclear power plant is possible by sealing the cracks of the decayed pipes. The steam generator performed normally during the 4 month tests, the spokesman said. [Text] [OW281319 Tokyo KYODO in English 1201 GMT 28 Jul 80]

CSO: 5100

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

'ATOMIC CITY' DESCRIBED--The ZHONGGUO XINWEN SHE transmitted a newsletter entitled "The 'Cradle' of China's Atomic Energy" on 2 August, introducing the current situation and history of China's Atomic Energy Research Institute." The outline of the article is as follows: After our car left Beijing City, we headed southwest. After passing Liangxiang Township in Fangshan County, we caught distant glimpses of a number of red buildings surrounded by trees. That was the "atomic city" we were heading for. This place is about 50 kilometers from Beijing City. Yanshan lies behind it, and it is quite close to the "petroleum city" of the Yanshan Petrochemical Company. Since construction began in 1956, it has developed into a small town with 13,000 inhabitants, and has been given the name of the Fangshan County new township. Institute Director Wang Gangchang, who is 73 years old, told us this Atomic Energy Research Institute is a comprehensive institute embracing many sciences. It is mainly engaged in basic and applied research in atomic physics, radioactive chemistry and nuclear reactors. It has also developed and produced radioactive and stable isotopes. [Text] /HK040624 Hong Kong WEN WEI PO in Chinese 3 Aug 80 p 67

CSO: 5100

TAIWAN

BRIEFS

NUCLEAR POWER GENERATION UNITS--Taipei, 24 Jul--Economics Minister Chang Kwang-shih said Wednesday that the government will construct 20 nuclear power generation units by the year 2000 to increase energy supply. Minister Chang made this remark at a cocktail party on the occasion of China Shipbuilding Corporation's [CSBC] obtaining ASME [no expansion provided] Section III certificates of authorization at the Grand Hotel. CSBC has recently been authorized by the ASME to use N (nuclear components) and NPT (parts of nuclear components, etc) stamp on its nuclear products. [Excerpt] [Taipei CNA in English 0234 GMT 24 Jul 80 OW]

CSO: 5100

TODOROV BREAKS GROUND FOR FIFTH NUCLEAR PLANT

A9090943 Sofia Domestic Service in Bulgarian 0900 GMT 9 Jul 80

[Text] One event connected with our country's energy supply has gathered together at this moment many guests, constructors and assembly workers at the Kozloduy nuclear plant. Vladimir Emilov reports:

[Begin Emilov recording] Only a few minutes ago the official part of the event was over and Comrade Stanko Todorov performed the ground-breaking for the fifth nuclear reactor. From now on the construction of the fifth reactor will be the focal point of our attention.

Now that the ground-breaking is over and construction has begun, I can say that this is a "reactor-millionaire"--a reactor with a capacity of 1,000 megawatts. These 1,000 megawatts mean 13-14 percent of the nuclear capacity of the country to date. When the next, the sixth reactor is commissioned, Bulgaria will be able to confidently talk about the stability and security of its energy supply.

The following persons attended the celebration at Kozloduy first nuclear plant: Comrade Stanko Todorov; Grigor Stoichkev, deputy chairman of the Council of Ministers; Nikola Todoriev, minister of power supply; Nano Lalov, Vratsa Okrug BCP Committee first secretary, and other officials, guests and constructors. Comrade Nano Lalov opened the celebration, and Nikola Todoriev, minister of power supply, spoke. Comrade Stanko Todorov did the ground-breaking. [end recording]

CSO: 5100

BULGARIA

BRIEFS

ATOMIC FUEL BARGE--Sofia, 30 Jul (BTA)--A special barge was built at Ruse shipyards destined to ship used atomic fuel for regeneration in the Soviet Union. The barge was designed at the shipbuilding institute in Varna and was recognized as an invention. It will carry atomic fuel along the Danube from the Kozlodui atomic power station. It can handle 8 containers and has an electric station, a special disactivation ground and a lead-screened zone for the crew. The vessel meets every requirement for safe transportation of its special cargo. /Text/ /Sofia BTA in English
0820 GMT 30 Jul 80 AU/

CSO: 5100

V-1 NUCLEAR POWER STATION COMPLETION RECOUNTED

Prague HOSPODARSKÉ NOVINY in Czech 27 Jun 80 pp 8-9

[Article by Helmut Drozd, Federal Ministry of Fuel and Energy: "First Nuclear Power Station, Landmark of a New Quality in the Czechoslovak Power Industry"]

[Text] "The completion of this power station by means of which the CSSR entered into the era of industrial utilization of nuclear energy is an outstanding example of our continuously increasing mutual cooperation with the Soviet Union. This cooperation is giving the Czechoslovak economy access to application of the very latest findings of world science and technology. At the same time, it expresses the great understanding of the CPSU Central Committee and the USSR Government for the developmental needs of the Czechoslovak economy."

(From a letter by Gustav Husak, general secretary of the CPCZ Central Committee and president of the CSSR, to the builders of the V-1 power station on the occasion of the start of operations of Power Unit II and completion of the first Czechoslovak nuclear power station, in Jaslovské Bohunice, 28 May 1980.)

The Czechoslovak Socialist Republic, thanks to its developed industry, is one of the countries where providing a balance in fuel energy management is not an easy matter. It calls for a comprehensive approach to the solution of the needed growth of primary sources of energy, to limited possibilities of mining coal for power and the hydroelectric potential, as well as further increasing nuclear power. Consequently, turning toward the peaceful application of atomic energy to solve urgent future needs of power sources was a step forward for our society.

The highest CSSR party and government bodies adopted the concept of developing nuclear power stations on the principle of light-water reactors of the Soviet Voronezh design which is economically advantageous, approved, and tested in direct operations. The Soviet Union has a wealth of experience with power stations of the Voronezh type, not only in building the individual units, but especially in their operation. This type of nuclear power station can be found in other socialist countries: for example, the Nord power station in the GDR, the Kozloduj power station in the Bulgarian People's Republic and especially the Paks power station in the Hungarian People's Republic. The broad experience of Soviet specialists, experts and technicians, together with the initiative of our workers, became the driving force in building the first Czechoslovak nuclear power station, completing it successfully, and starting operations.

On the Basis of the Agreement of 1970

Construction of nuclear power station V-1 in Jaslovske Bohunice with an output of 880 MW was carried out on the basis of an intergovernmental agreement between the CSSR and the USSR of April 1970 on mutual assistance and cooperation in the construction of two VVER-type nuclear power stations and, following the intent of CSSR Government resolution No 195/70, was incorporated in the listing of projects of extraordinary importance. The VVER-type 440 reactor is the first of a series of these power stations with light-water reactors on which the future Czechoslovak nuclear power program is based, with units of the same output and later with a higher output with regard to increasing safety requirements.

In accordance with government resolution No 197 of 1976, it was decided to build another nuclear power station with an output of 880 MW of a different concept (V-213 type reactor) in the area of Jaslovske Bohunice. After its completion and inauguration in service it will form, together with the completed V-1 power station, a joint nuclear power complex.

On the basis of an intergovernmental agreement of April 1970, participants in the preparation and execution of the power station construction included, besides Czechoslovak enterprises and organizations, Soviet designer and supply organizations. The primary investor was Investicni Vystavba Energetiky Slovenska [Power Industry Capital Construction of Slovakia], a specific-purpose concern organization of Bratislava; the general developer was Energoprojekt Prague, the main supplier of the structural part was Hydrostav national enterprise, Bratislava, with its subsuppliers--Armabeton Prague, Termotav Bratislava, Hutni Montaze Ostrava and Pozemni Stavby Trnava. Other participants in the project were: main supplier of technology for the secondary part and assembly of equipment of the primary plant, Skoda national enterprise, Plzen, with its suppliers of final goods--EZ Prague, Potrubí Prague, KS Brno ZPA Bratislava, Sigma Lutín, Janka Radotín, Termotav

Bratislava, ČKD Prague, INPRO, ČKD Dukla Prague, Mětra Blansko, Vltavlat Ština, Labora Brno and ČKD Hradec Králové. Design preparation was carried out jointly by the Energoprojekt Prague general developer and the Soviet designer, Leningrad Division Teploelektroprojekt (LOTEP).

On the basis of the division of supplies between the Czechoslovak and Soviet parties the Soviet Union supplied the technological equipment for the primary part of the power station--the reactor, steam generators, circulating pumps, control protection systems, reactor measuring and such. Equipment for the secondary part--turbogenerators with auxiliary circuits, measuring and regulating equipment--was manufactured and delivered by Czechoslovak production enterprises. The delivery of nuclear fuel for the entire life of the power station's operation is provided by the Soviet Union.

In compiling the design documentation the latest tested findings and experiences from the first period of operation of a similar power unit in Vojanov were applied to a great extent. Thus, the design of the V-1 power station also incorporates certain distinct, more modern treatments in view of these experiences, a modified layout in the auxiliary circuit part as well as other different treatments of technological parts, increasing operational reliability and nuclear safety.

Czechoslovak organizations with the direct participation of Soviet specialists built the structural part, installed all the equipment of the V-1 power station and turned on the units individually. Preparatory work was begun in April 1974 and construction of the main production unit a year later. At the same time construction work on adjacent installations and on equipment at the building site also was taking place. In August 1976 the steam generators for the first unit were delivered to the project and in April the reactor vessel.

The construction was governed by a prepared and approved diagrammatic chart and building schedule. Certain items of excessive size from the USSR were transported by rail to the Soviet port on the Black Sea, from there by boat to Bratislava and then by CSAD [Czechoslovak Vehicular Transportation] (Ostrava to the site. The reactor vessel, because of its great weight (210 tons) and size, was transported to the Soviet port on the Black Sea from Leningrad by boat around Europe. The maximum concentration of construction and assembly workers was reached in the years 1977 to 1979, when some 5,000 people were working on the project, besides employees from operations and research.

Construction With the Help of Modern Elements

A construction management body was established for the project, composed of representatives of the chief organizations taking part in the construction.

Groups performing operational management and coordinating critical junctures were set up as auxiliary working bodies. An interdepartmental commission and its executives bodies were set up for the stages of starting operations; for the first unit, a group controlling starting operations, and for the second unit, an operational staff and operational group. These bodies directed and supervised the course of the individual stages. To raise the quality of selected technological equipment of the nuclear part an entry inspection was carried out on the site, the extent of which was determined by the project itself, approved by technical bodies of the CSSR and the USSR.

The order of completion of the installations was oriented toward their utilization even during the course of construction, for example, first installation of reserve boilers; then engineering networks, purification stations, administrative buildings, social facilities, etc.

In the course of construction, especially in the building part, certain technologically modern elements were utilized:

- Metal walls, floors and ceilings (so-called facing) of carbon or stainless steel;
- Surface treatment of concrete areas with a form of "Isoplast" and on floors, plastic coating to protect against corrosive solutions;
- Partitions of "Siporex";
- Wall covering in the main production unit made of large-sized siropex clamped panels;
- Roof covering: Kryzolit pearl concrete;
- System Formwork IS - NOE Universal Hunebeck supporting structure.

Starting Operations--A Long-Term Process

In comparison with a thermal power station the starting up of a nuclear power station represents a long-term process which begins with activating and checking out the quality of equipment, includes attuning the individual systems of the primary and secondary parts and ends with turning on the power, topped off by comprehensive tests.

In the course of the first run, which lasted from 17 December 1978 to 10 May 1980, that is, from the time of phasing-in until refueling, the first unit produced 3,272,589 mwh of electricity. The total time for construction and starting operations of both units was 85 months, which represents 7 years and 1 month, while from start of construction to phasing-in of the first

turbogenerator in December 1978 took not quite 6 years. This fact represents one of the shortest construction periods for a project of this type that has ever been achieved within the COME framework. It is a great achievement for Soviet specialists, as well as our workers, even when compared with the construction time of nuclear power units of similar capacity in industrially developed capitalist states. The amount of electricity produced up to the time of the first refueling also ranks in first place compared with other units of the VVER 440-type.

Other than that, the cooperation and participation of Soviet organizations had already begun in the course of preparation for the construction of the V-1 power station. It was directed toward pre-design and design preparation, delivery of technological equipment for the primary part and documentation for the production of certain components in Czechoslovak production enterprises, technical direction of the assemblage, the main assembly and special assemblies, starting up the power station, training the operational workers, and delivering nuclear fuel to run the power station.

During peak times of construction there were 150 Soviet specialists working here for whom political and industrial agencies of the project in cooperation with okres, party, community and state agencies of Trnava okres made a second home. In order to make the stay of the Soviet specialists and their families more agreeable, conditions for after-work activities were set up in political, cultural, recreational and health areas and in Trnava itself a club for Soviet specialists was opened.

New Forms, Dedication, Initiative

In the course of building the V-1 nuclear power station in Jaskovské Bohosťice there were gradually established a project-wide committee of the CPSU, a project-wide trade union council and a project-wide committee of the Socialist Youth Union. The work of these bodies in cooperation with committees of various economic organizations was directed toward raising the political standards of the workers, toward supervising activity in the process of construction and creating optimal social and working conditions for every worker. Continuous attention was given to one of the most important forms of mass political work, the development of socialist competition, the pledging movement, the introduction of modern work methods and the development of working activity. The purposeful activity of the project-wide bodies mentioned above even strengthened mutual Czechoslovak-Soviet relations. Likewise, all the political-organizational measures developed and carried out to provide for the fulfillment of all the objectives of the state plan must not be overlooked.

During the construction of the V-1 power station there was not a single day that did not see a specific example of the working enthusiasm and dedication of the workers. An example of this was the annual joint socialist pledging

made in honor of important sociopolitical anniversaries and events. The majority of these pledges were for the purpose of reducing the construction time of critical parts of the project.

In 1978 and 1980 joint Czechoslovak-Soviet pledges were made for the starting operations of the first unit and the second unit of the V-1 nuclear power station. It is a pleasure to report that more than 83 percent of all workers are involved in the development of socialist competition, working activity and the pledging movement.

International joint brigades composed of Soviet specialists and other workers of the organizations participating in the construction are a new form of developing working activity in the area of performance and the starting operations. In the course of the last period, four international brigades with 145 members were working here. Then there were 99 teams of Brigades of Socialist Labor with a total of 1,525 members and four Comprehensive Brigades for Increased Efficiency on the project. Special attention was given to the application of modern working methods; 130 teams in the construction of the V-1 and V-2 power stations are using the Basov method, three teams employ the Zlobin method, and one team was involved in the Saratovsky working movement.

In assessing the amount of worker activity in meeting challenging industrial tasks of the project we must not overlook the voluntary creative activity of workers which in 1978 and 1979 recorded an economic contribution worth Kcs 4,967,767 through the application of 114 improvement suggestions. In the same period workers at the site worked off more than 35,500 brigade hours.

Next to Number One Arises Number Two

Adjacent to nuclear power station V-1, power station V-2 is being erected. It represents a capacity with two light-water reactors of the VVER 440-type for thermal neutrons with a planned output of 2x425 mw of electricity. It differs from the recently completed V-1 power station in that a new treatment which results in increased nuclear safety is projected in the design treatment, not only in the building concept and technological parts, but also in the system of constructing the entire project.

The construction of this second nuclear power station was begun in November 1977, and the deadline for starting test operations of the units is stipulated by a resolution of the CSSR Government Presidium as 31 December 1982 for the first unit, and 31 December 1983 for the second. Construction of the power station was begun in the stage of preparatory work.

The excavation and foundation of the most important buildings were started in 1978. In the course of last year the rough construction of certain

buildings and the lower floor of the main production unit were completed. In addition, work was done on the reactor shaft of the first unit together with the assembly construction work associated with mounting the critical technological equipment into the body of the reactor shaft.

The past period of work on the nuclear power station V-1 also did not pass without certain problems in meeting the deadlines of the design documentation in view of technical complexities and the necessary completion of Soviet documentation in connection with Czechoslovak norms and regulations.

In order to maintain a continuous flow of construction work it was necessary to divide up the design documentation into individual stages and take extraordinary steps to insure their execution and integration on the basis of technological equipment, both imported and domestic, including projecting it into the operational designs of the building parts.

Inadequate supplying of the project with design documentation had an unfavorable influence on the course of the building work, particularly in the first half of 1979. There were considerable problems in obtaining special reinforced steel diameter 40. Obtaining structural steel frames for the framework of the main production unit of the reactor building, the electrical equipment building, the engine room, etc., continues to be a serious problem.

In the area of supplies work proceeded very well with respect to the pipelines of cooling water between the cooling towers of the engine room and the pumping station. Chief efforts were directed toward enclosing part of the supplies and the large-sized equipment limiting progress of the construction work. Through joint efforts they succeeded in enclosing sections and supplies in the reactor shaft of the first V-1 unit, and the production of structural bushings was no less successful. Another important built-in element was the set of rust-resistant sealing bushings mounted in the reinforced units, supplies of which, however, are in doubt for the second unit in 1980.

They were able to obtain timely deliveries of certain 5-ton cranes; two 125-ton cranes for the engine room, as well as a 250-ton crane for the reactor hall. This equipment will be used to transport building materials and mounting critical technological items. Work at the adjacent buildings is proceeding in accordance with the building schedule and blueprints.

The Next Half-Year Will be Critical

This year, especially its second half, is becoming a critical period for progress of the construction. The builders of the V-2 nuclear power station are, in fact, faced with very difficult tasks with respect to the start of construction work in the central part of the reactor hall, having the

construction ready for assembly of the steel framework of the main production unit in full shape by 31 August 1980, insuring the delivery and assembly of the 125-ton crane in the engine room by 1 October 1980 and preparing the engine room for assembly of turbine No 1 by 31 December 1980.

Important tasks of 1980 are divided into areas of insuring designs, construction work, technological supplies and diesel generator stations.

The area of design insurance means disposing of deficiencies and slippage in the documentation of construction execution designs, creating conditions for contracting of equipment from abroad, and devoting increased attention to time and material coordination. In respect to construction work, it is hoped to increase capacity by recruitment and the institution of multiple shift operations in order to meet the critical building deadlines. Then there is also the production and delivery of steel frames for the main production unit, meeting the deadline for assembly by the OK engineering plant, and structural components for the 125-ton cranes from Vitkovice.

In the area of technological supplies and work it will be necessary to give more attention to the bulky tank, and with respect to the diesel generating station, it is essential to accelerate contract negotiations for the purpose of setting up procedures for the comprehensive construction for all interested organizations.

Initial findings from the construction of our V-1 nuclear power station in Jaslovske Bohunice fully confirm that this important field is subject to continuing developments of science and technology which influence to a certain extent the area of conception, production of equipment, construction and ensuing operations. We were also able to perceive this fact during construction of nuclear power station V-2 and therefore the experiences gained provide necessary knowledge for further development of our nuclear power. After all, the expansion of the nuclear program in the CSSR on the basis of peaceful application is an essential and important step for further development of our national economy and increasing the living standard of our people.

Some Figures About the Construction Work on V-1

Excavations	1,670,000 m ³
Plain concrete	135,000 m ³
Reinforced concrete	198,000 m ³
Prefabricated elements	70,000 t
Steel frames	15,000 t
Metal facing of walls, floors, ceilings or carbon steel	22,000 m ³
Metal facings of walls, floors, ceilings of stainless steel	9,800 m ³

8491

CSO: 5100

BRAZIL

BRIEFS

DOMESTIC NUCLEAR ALLOYS MANUFACTURE--Sao Paulo--The federal government will receive a report today prepared by the Eletrometal Company showing that this company is in a position to manufacture material in Brazil essential for the core of nuclear reactors with entirely national technology. This means that Brazil will be able to manufacture tubes of zircalloy, inconel, incoloy and hafnium. The first three materials are of fundamental importance for the construction of conventional nuclear plants and the last one would make possible the manufacture of mobile reactors and atomic submarines. /Excerpts/ /PY281732 Rio de Janeiro O GLOBO in Portuguese 23 Jul 80 p 22/

NUCLEAR ENERGY DEVELOPMENT SPEEDED--Brasilia, August 13 (XINHUA)--About 30 to 40 nuclear power stations will be put into operation in Brazil in the coming 30 years. This was announced by Carlos Valadao, a leading member of the Superintendent and General Planning Office of the Brazilian Nuclear Centre (Nuclebras), yesterday. In a recent interview with XINHUA, Marcos Nunes, special adviser to the minister of mines and energies, said that the first newly built nuclear power station in Rio de Janeiro is in trial operation at present and will be officially commissioned by the end of 1981. Domestic polemics about nuclear power stations will not affect the progress of their construction under the Brazilian-West German agreement on nuclear cooperation, he added. The federal government has decided to give priority to the Angra 2 and 3 nuclear centres projects which have cost \$200 million this year, reported the paper O ESTADO DE SAO PAULO recently. Though rich in uranium ores, Brazil has to spend a lot of foreign exchange on oil imports every year. The federal government has attached great importance in recent years to the introduction of advanced nuclear technology from abroad to boost the nuclear industry and ensure energy supply. /Text/ /OW141220 Beijing XINHUA in English 1206 GMT 14 Aug 80/

CSO: 5100

HONDURAS

COMMITTEE REPORTS URANIUM NOT EXPLOITABLE

PA142323 Panama City ACAN in Spanish 1600 GMT 14 Jul 80

[Text] Tegucigalpa, 14 Jul (ACAN-EFE)--It was reported here today that the special committee investigating the existence of uranium in Honduras has reportedly concluded that the metal is available in noncommercial quantities. The government had appointed this committee to clarify a statement made by the mine workers union of El Mochito, located in Santa Barbara Department in the northwestern part of the country. The union had claimed to have proof that the concessionaire, "Rosario Resources Corporation", has been extracting uranium.

This company is not authorized to carry out this type of operation and it is believed that once the official report is submitted, there could be sanctions imposed on the company.

The investigating committee is made up of representatives of the Honduran engineers association, the national university, the Honduran newsmen's association, the mine workers union, the national government and foreign technicians Jorge Alberto Muset from Argentina and John Svanholm from Sweden.

The radioactivity test results have been such, according to Muset, "as would discourage any investigator."

Nevertheless, the measurements made confirm the report made by the union's president, Cirilo Coto, who stated that in El Mochito there is uranium in a 50 - 1 million ratio. [as received]

"A deposit does not have commercial potential if the ratio is less than 2,000 - 1 million, and we have only found 40" [figures as received], Muset said.

"Therefore, the amount found here is well below the minimum required for exploitation," Muset stressed.

The committee will not limit its investigation to uranium. It also has the authority to investigate the export of metals other than lead, zinc, silver or cadmium, which are the ones the "Rosario Resources Co." is authorized to export.

CSO: 5100

PERU

'EL COMERCIO' CALLS NUCLEAR AGREEMENT WITH U.S. 'IMPORTANT'

PA041404 Lima EL COMERCIO in Spanish 28 Jun 80 p 2

[Editorial: "Important Agreement for the Development of Nuclear Energy"]

[Excerpts] Peru is among the countries which, having a farsighted attitude, have given great importance to the study and development of the use of nuclear energy for peaceful purposes. According to the agreement that Peru has just signed with the United States, Peru will obtain nuclear fuel, material and technology for peaceful uses. This agreement is very important because of our country's situation.

The agreement in question represents for Peru an important achievement by making nuclear resources more available through the exchange of fuel, material, experts and equipment necessary for the research and application of that energy. In this way, Peru has placed itself among the Latin American countries which have a greater perspective in this field.

CSO: 5100

PERU

BRIEFS

RADIOACTIVE MINERAL PROSPECTING--Lima, 11 Jul (AFP)--With a law promulgated today, the Peruvian Government authorized national and foreign persons and companies to prospect for and exploit radioactive minerals in the country. This law which requires that the export of radioactive minerals be made under contract, includes a clause that requires that the minerals be used for peaceful purposes only. [Paris AFP in Spanish 0538 GMT 12 Jul 80 PY]

CSO: 5100

ISRAEL

BRIEFS

NUCLEAR NONPROLIFERATION NEGOTIATIONS WELCOMED--Israel is willing to immediately start negotiations with Arab countries to sign a nuclear nonproliferation pact for the Middle East. This was stated by Foreign Minister Yitzhaq Shamir in the Knesset today. Mr Shamir spoke in reply to two motions for the agenda by Knesset Members Wilner and Avneri. /Begin Shamir recording/ As far as Israel is and was concerned, we can start such direct negotiations with the participation of all states of the region at any time, in any place, and without preconditions. Israel has also expressed the opinion that the discussions of setting up a zone free of nuclear weapons in the Middle East should also touch on the central issue of the geographical boundaries of such a region. The definition of this region should be large enough to include states bordering on the Middle East that are not parties to pacts or to existing arrangements establishing regions free of nuclear weapons. So far, however, the Arab states have absolutely rejected these Israeli proposals. /end recording/ At the foreign minister's proposal, the two motions of Avneri and Wilner were struck off the Knesset agenda. /TA302001 Jerusalem Domestic Service in Hebrew 1700 GMT 30 Jul 80/

NUCLEAR OPTION--Physicist Yuval Ne'eman revealed that Israel had a nuclear potential in the 1960's. However, Israel announced it would not be the first to introduce nuclear arms into the Middle East. Professor Ne'eman, the head of the Tel Aviv University Advanced Studies Institute, said this will be Israel's policy as long as nuclear arms are not introduced into the region by another country. Speaking at the Commercial and Industrial Club in Tel Aviv, Professor Ne'eman noted it is impossible to know what will happen if Al-Qadhdhafi introduces nuclear arms into the region and that this is cause for concern. [Text] [TA041720 Jerusalem Domestic Service in Hebrew 1700 GMT 4 Jul 80]

COMMENTS ON NUCLEAR DANGER--The director general of the prime minister's office said in an interview to the West German newspaper DIE WELT that Israel must not wait till a nuclear bomb falls on it. Matityahu Shmuelevitz told DIE WELT correspondent in Israel Efrayim Lahav that Israel must defend itself, but declined to say whether it was capable or incapable of producing nuclear weapons. [Text] [TA151434 Jerusalem Domestic Service in Hebrew 1400 GMT 15 Jul 80]

KUWAIT

BRIEFS

NUCLEAR ENERGY COMMITTEE--Kuwait, 27 July (KUNA)--Kuwait announced today that it has decided to form a committee to study the use of nuclear energy for peaceful purposes. The decision was announced at the end of the cabinet weekly meeting under the chairmanship of Prime Minister and Heir Apparent Shaykh Sa'd al-'Abdallah as-Sabah. A committee was formed of representatives of the ministries of planning and oil, the Kuwaiti University and the Kuwaiti Scientific Research Center. The minister of electricity, Engineer Khalaf Ahmad al-Khalaf, will head the committee. [Text] [LD271522 Kuwait KUNA in Arabic 1226 GMT 27 Jul 80]

CSO: 5100

SOVIET COMMENTS ON ISRAELI NUCLEAR ARMS DEVELOPMENT

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 6, Jun 80 signed to press 6 Jun 80 pp 19-22

(Article by Engr-Col O. Yul'yev)

(Text) With the active participation of the USA and other countries belonging to the aggressive NATO bloc, the Zionist state of Israel is constantly increasing its military-economic potential, outfitting its armed forces with the most up-to-date weapons and combat equipment. An announcement of the Soviet government published on 29 April 1976 states that "Israel is continuing to increase its arms on a tremendous scale. The United States of America is supplying various modern weapons, including missiles adapted to carry both conventional and nuclear warheads. Reports that Israel is creating, or has already created its own nuclear weapon thus raise concerns."

Plans for developing an atomic bomb were advertised by the country's military-political leadership almost from the very beginning of its existence. Explaining Israel's refusal to sign the Nuclear Nonproliferation Treaty and its openly aggressive policy in relation to neighboring Arab states, the Western press names, as one of the causes, presence of a certain quantity of nuclear weapons in the Israeli Armed Forces.

Active scientific research aimed at creating the necessary base for production of a nuclear weapon was started in 1952, when a government decision created an atomic energy commission headed by Bergman. One of its first steps was construction of atomic scientific research centers, which went on with full support from Western powers, mainly the USA, France, and the UK.

The first atomic center was created in 1960 with the help of the USA in Hatai Sorek (20 km south of Tel-Aviv), which began to train national scientists. It possesses a pool-type nuclear research reactor (IA-1) with a thermal output capacity of 5,000 kw. An atomic center was placed into operation in 1963 in the Negev Desert in the vicinity of the city of Dimora (30 km southeast of Beersheba). According to a foreign press report this is the main scientific-technical, technological, and production complex for the use of nuclear energy for military purposes. It contains a design

office, research laboratories, and enterprises necessary to support the development, planning, and manufacture of nuclear weapons. A heavy-water nuclear reactor (IRK-2) with an initial thermal output capacity of 26,000 kw, built on the basis of French plans, is its principal structure, and it is being used to produce plutonium for weapons (6-8 kg per year).

According to estimates of Western specialists Israel completed construction of a nuclear explosive device by 1966. At this time, according to the English journal NEW SCIENTIST, the above-mentioned Bergman could not restrain himself from announcing that he had enough atomic scientists to manufacture an atomic bomb. And it is no accident that in May 1966 he and a group of scientists were given awards by the defense ministry for "outstanding achievements in a vitally important area of the country's security." It was stated in Western press, not without grounds, that they were awarded to Bergman for development of an atomic weapon, and to the others for creation of Israeli medium-range missiles. Considering the special importance and purely military orientation of the scientific research and experimental design work done under the guidance of Israel's atomic energy commission, Prime Minister and Defense Minister L. Eshkol took charge of this commission in April 1966.

A radiochemical unit to process irradiated nuclear fuel was put into operation in 1969 at the atomic center in Dimona, and extraction of plutonium for weapons began. The Western press declared at this time that Israel either already possessed an atomic bomb, or it would have one in short time. These reports were confirmed by American intelligence services, which established that Israeli agents were secretly purchasing special materials that could be used precisely in the concluding stage of the creation of this mass destruction weapon.

According to data of the West German journal DER SPIEGEL, the atomic center in Dimona, which had transformed into an industrial complex, became one of Israel's greatest secrets, and it was defended so meticulously that in the first day of the June war of 1967, when a damaged Israeli Mirage entered its air space, it was immediately knocked down by a Hawk missile, killing the pilot. Six years later Israeli fighters knocked down, without warning, a Libyan passenger airplane with 113 persons aboard that had lost its orientation in the same region.

In July 1970 the newspaper NEW YORK TIMES carried a report with the headline "USA Suspects Israelis Have an Atomic Bomb or the Components For It." It asserted that in December of 1969, when Israel was conducting negotiations with the United States to purchase 50 Phantom F-4's, Israeli officials asked the Pentagon to furnish some of them with bomb racks for nuclear weapons. This was perceived as an indirect confirmation of the opinion formed somewhat earlier that Israel was arming itself with an atomic weapon. And then the American weekly TIME reported that in October 1973, at the beginning of the Arab-Israeli war, when the situation on the Egyptian and Syrian fronts was evolving to Israel's disadvantage, the first 13 atomic

bombs were assembled out of the components available; some bombs were delivered to the airplanes, and Defense Minister E. Dayan received your mission from Prime Minister M. Bar to use the "unlabeled bag" weapon, but the situation on the fronts changed, and the Israelis restrained themselves from using it. In December 1974 Israeli President (E. Katsir) admitted officially for the first time that Israel possessed the "unlabeled" for producing a nuclear weapon. The nuclear reactor and the equipment in the atomic center in Dimona continue to operate, and in the opinion of western specialists Israel could have assembled not less than 20 atomic bombs with a power of up to 20 kilotons each by now.

The plans for outfitting the armed forces of Israel with nuclear weapons also foresaw development of a local production base to create their own missiles both airplanes and surface-to-surface operational-tactical missiles. In the first stage of work on this form of arm (prior to 1967), Israel cooperated closely with the French "Dassault" Company, purchasing Mirage-3 airplanes from it. This same company supplied 10 surface-to-surface guided missiles to Israel (two stages, solid fuel, launched from mobile launchers, 450 km range); the Israelis decided to modify their design, and they tentatively named them the MB-335.

With the beginning of the June war of 1967, following France's declaration of an embargo on arms deliveries to Israel, Tel-Aviv hastened creation of local production capacities to produce airplanes and missiles. The French Mirage-3 was modernized, and it was used as the basis for creating Israeli Kfir fighters, followed by the Kfir-C2. Kfir-C2 airplanes, which can be used to carry a nuclear weapon, have been in production in Israel since 1974. "Jane's" states that more than 150 of these were produced by the beginning of 1980. Two or three Kfir-C2's can produce each missile.

Tel-Aviv concurrently took steps to modernize MB-335 missiles. According to reports in the foreign press, a new two-stage missile with a range of up to 500 km and a warhead weighing 450 kg was given the code name "Jericho". According to the American newspaper CHRISTIAN SCIENCE MONITOR Israel assimilated their production successfully, and by as early as 1974 it produced about 60 units. Back in 1970 the NEW YORK TIMES, citing American intelligence sources, reported that "the Israeli missile program would not make sense from a military point of view, if Israel does not intend to offset the situation with nuclear weapons. A two-stage missile would not be thought of as an effective weapon if it carries conventional explosives."

Thus according to evaluations of the Western press Israel "must" have plenty of nuclear weapon carriers. In addition to successfully produced carriers, these weapons may be delivered by Soviet or American aircraft when the Israeli Air Force is armed--the Egyptian A-1 (2nd gen), Phantom F-4 fighters (1970), and the latest tactical fighters, Mirage F-1's (about 70 airplanes had been delivered by the beginning of 1980). Israel also has at its disposal 500 American large missiles capable of carrying nuclear warheads.

As is emphasized in the Western press, Tel-Aviv was able to create its expensive atomic weapon owing to generous subsidies from capitalist states, mainly the USA and international Zionist organizations. In just the first 20 years after the founding of the state of Israel--and it was precisely in this period that construction of the center in the vicinity of Dimona was initiated--the financial aid rendered to it is estimated at approximately \$8 billion. In this way the West did everything to encourage Israeli expansionists in their desire to have their own nuclear weapon. Thus in 1967, 2 days before Israel's June aggression, the West German newspaper DIE WELT wrote that sooner or later the government of this country will have to face the question: Should it not insure its security through atomic intimidation?

The newspaper THE NEW YORK TIMES noted that many important atomic secrets were given to Israeli specialists by their Western colleagues of Jewish nationality. This permitted them to avoid costly research and experiments, and hasten development of their own weapons. As far as tests of nuclear warheads are concerned, in the opinion of the foreign press such tests do not have decisive significance today, all the more so if these warheads are based on designs that have already been tested out. Moreover the press has reported participation of Israeli specialists in tests of a French nuclear weapon in the Sahara desert, where they doubtlessly acquired the appropriate experience.

Special emphasis should be laid here on the fact that while paying lip service to a policy of nuclear nonproliferation, the American government is actually helping to supply Israel with a significant quantity of uranium through CIA channels and the Israeli secret service, the Mossad. One of the most sensational operations was the seizure of the ship "INSIGHTFUL" and "disappearance" of 200 tons of enriched uranium, present on board and belonging to the International Organization for Atomic Energy. It was revealed later that this ship and its cargo ended up in Israel as a result of Israeli operations conducted by the Israeli and American intelligence services. The "loss" of 120-180 kg of uranium from one of the American enterprises in the city of Argonne (Illinois) has also become public. Another source the Israelis have for uranium is the Republic of South Africa, which also refuses to sign the Nuclear Nonproliferation Treaty. In the opinion of some foreign reviewers, in exchange for uranium deliveries and capital investments by South Africa into Israeli industry, Tel-Aviv provided active assistance to South African scientists in development of a nuclear warhead and preparation of its detonation at a test range in the Kalahari Desert. According to a report by the American CBS Television Corporation, Israel and South Africa conducted a joint test of a nuclear weapon in September 1979 in the Atlantic Ocean on the coast of South Africa.

In its expansionist desires and with the broad support of the West, Tel-Aviv is continuing to increase the nuclear potential, viewing it as a means for intimidating Arab states fighting to liquidate the consequences of Israeli aggression.

APPENDIX "International Atomic Energy Agency", 1980

1980

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USSR

SOVIET SCIENTIST OUTLINES DEVELOPMENT OF NUCLEAR ENERGY PROGRAM

LD021348 Moscow TASS in English 1220 GMT 2 Jul 80

[Text] Leningrad, July 2, TASS--Soviet power engineers have come to reckon a unit power of a million kilowatts for the generating units of atomic power stations as an optimum one. With such a potential of the generating units, nuclear power stations confidently vie with the power installations of any other type by efficiency, remaining fully safe to the environment. Academician Igor Alekseyev, noted Soviet scientist in the field of power engineering, told these considerations to a TASS correspondent in connection with the completed manufacture in Leningrad of the USSR's first turbogenerator with a power of a million kilowatts for an atomic power station.

The manufacture of reactors of the same potential has been already set up and the manufacture of turbines of this power has been started in the Soviet Union.

"Soviet nuclear power engineering began twenty-five years ago with the construction of the world's first atomic power station near Moscow with a power of five thousand kilowatts. At present the construction of other-than-atomic power stations has been terminated in the European part of the USSR. This is explained by environmental protection interests: Annually power stations operating on organic fuel in the world discharge 200-250 million tons of ash, and about 60 million tons of sulphurous anhydride into the atmosphere", the scientist pointed out.

At present atomic power stations in the USSR generate about ten per cent of the country's entire amount of electric power. Atomic power stations with an aggregate power of over thirty million kilowatts are also to be built in the territories of CMEA member countries with the Soviet Union's assistance before 1990.

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NUCLEAR ENERGY DEVELOPMENT EMPHASIZED

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[Summary] Paris, 10 Aug--"France is one of the countries in the world that got an early start in developing its nuclear power industry. France has built 16 nuclear power stations and ranks third in the world--behind the United States and Japan--in nuclear power generation." Additional larger nuclear power stations will be built in the 1980's.

France built its first graphite gas-cooled nuclear power station in the late 1950's. In the 1960's, France began to build light water reactor nuclear power stations and at the same time started research work on a fast breeder reactor. The 1973 petroleum crisis seriously affected the French economy. The French Government then formulated an ambitious nuclear energy program to make nuclear energy one of France's three energy sources (the other two are petroleum and coal). In April, France formulated a new energy plan for the 1980's. According to the plan, the proportion of petroleum in France's total energy consumption will drop from 56 percent in 1979 to 30 percent in 1990, or from 108.5 million tons to 68 million tons. In addition, the proportion of nuclear energy will increase from the current 4.5 percent to 30 percent. "The total installed capacity of nuclear power stations in France has reached 8.2 million kilowatts; last year these stations generated a total of 38 billion kilowatt-hours of electricity. Thirty-one new nuclear power stations are under construction or will go into operation soon. By 1985, the total installed capacity of nuclear power stations will increase from the current 8.2 million kilowatts to 45 million kilowatts, and nuclear power will increase from 16 percent to 55 percent of the country's total electric power production. By 1990, the total installed capacity will reach 54 million kilowatts; nuclear power will account for 70 percent of the country's total power production and nuclear energy will make up 30 percent of the country's total energy consumption. By 1990, France will become the world's second largest nuclear power producer, next only to the United States."

France has favorable conditions for developing its nuclear power industry. France has abundant uranium ore with proved reserves totaling 120,000 tons. In addition, France controls mining rights for uranium in such uranium-rich countries as Gabon and Niger. France is making rapid progress in research on fast breeder reactors. According to plan, the research work has progressed in three stages: stage one, developing the fast neutron liquid sodium-cooled reactor; stage two, research on and building the "Phoenix" type fast breeder reactor power station; and stage three, starting in 1977, to build a "Super Phoenix" fast breeder reactor power station with an installed capacity of 12 million kilowatts, scheduled for completion in 1983.

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NETHERLANDS

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NEW NUCLEAR POWER PLANTS--The Hague, 17 Jul--The Dutch Government intends to build three more nuclear power stations to meet energy needs up to the year 2000. Two power stations will be built next to each other near the western northeast Polder dike and the other near the existing power station in Borssele. This will increase the capacity of the Dutch nuclear power stations sixfold. The government is sticking to its decision to use salt strata /zoutkoepels/ in the north of the country for storing the waste from these power stations. The government regrets the second chamber's decision to carry out test drilling only after the broad social discussion on nuclear power has been completed. This was what the Van Agt cabinet wrote to the second chamber today in its third energy policy written statement which relates to nuclear energy. The statement was signed by the economic affairs, public health and environment, social affairs, and housing and physical planning ministers. The first part of the energy statement dealt with general energy policy and the second part with coal. /Excerpt/
/LD250927 Rotterdam NRC HANDELSBLAD in Dutch 17 Jul 80 p 1/

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